SCATTERING COEFFICIENTS FOR THE BACKSCATTERING OF ELECTROMAGNETIC WAVES FROM PERFECTLY CONDUCTING SPHERES

Research Information Series

By: Marley E. Bechtel

CAL Report No. AP/RIS-1
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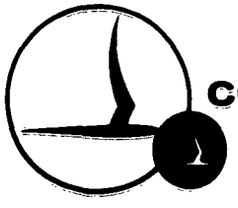

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INTRODUCTION

Tables of scattering coefficients giving the amplitude and phase of the electromagnetic wave scattered by a perfectly conducting sphere do not seem to have been published except for a very limited range of sphere sizes. A rather complete listing of tabulated scattering coefficients for spheres of various types is given in Reference 1, pages 28 through 31. None of the tables listed there gives amplitudes and phases of the scattered wave for the very wide variation in sphere size that may be encountered in practice. In reference 2 are given tables of normalized echoing area and phase angle for sphere circumference in wavelengths, ka, varying from 0.25 to 16 in increments of 0.25. Those tables were based upon computations made at this Laboratory several years ago, and, although the values given are correct, the increment in ka and the upper value considered are both too small for many applications. In the course of some radar investigations currently being conducted for Bell Telephone Laboratories[1], it became necessary to compute scattering coefficients for ka varying from 0 to 50 in steps of 0.02. We wish to thank Bell Laboratories for permitting us to use the results of those computations in the preparation of these tables.

[1] BTL Purchase Order No. D-292919 on Contract No. DA-30-069-ORD-1955

SCATTERING-COEFFICIENT FORMULATION

The following assumptions are made in the derivation of the scattering coefficients presented in these tables:

1. The incident wave is a linearly polarized monochromatic plane wave having wavelength λ (wave number $2\pi/\lambda$).

2. The sphere is perfectly conducting and of radius a (expressed in the same units as λ).

3. The scattered wave is observed at a great distance (R) from the sphere. R is the distance from the observation point to the center of the sphere.

The radian frequency of the wave, $\omega = 2\pi c/\lambda$ (where c is the velocity of propagation), is used to describe the incident wave in either of two forms: the first, involving $e^{+i\omega t}$, is now the more commonly used; the second, involving $e^{-i\omega t}$, is of some importance because of its appearance in much of the older, classical literature. The present tables are derived for the first representation, but the second representation leads, as will be shown shortly, to a scattering coefficient that is simply the complex conjugate of the first.

If the incident plane wave is given by

$$E_i = E_o\, e^{i(\omega t - kR)} \tag{1}$$

then the scattered wave is (subject to the conditions stated above)[2]

$$E_s = \frac{-iE_o\, e^{i(\omega t - 2kR)}}{2kR} \sum_{n=1}^{\infty} (-1)^n (2n+1) \left[\frac{J_n(ka)}{h_n^{(2)}(ka)} - \frac{(ka\, j_n(ka))'}{(ka\, h_n^{(2)}(ka))'} \right] \tag{2}$$

[2]Reference 3, page 295. Stratton's (Reference 4) notation has been used because it is much more common than Harrington's.

where

$$j_n(ka) = \sqrt{\frac{\pi}{2ka}}\, J_{n+1/2}(ka)$$

$$h_n^{(2)}(ka) = \sqrt{\frac{\pi}{2ka}}\, H_{n+1/2}^{(2)}(ka)$$

primes indicate differentiation with respect to ka and the other quantities are as previously defined. When a linearly polarized wave is scattered by a sphere, the backscattered wave has the same linear polarization as the incident wave (i.e., there is no depolarization by the sphere); consequently, all quantities can be treated as scalars. Equation 2 can be written

$$E_s = E_o \left(\frac{a}{2R}\right) e^{i[\omega t - 2k(R-a)]}\, \underline{G} \qquad (3)$$

where

$$\underline{G} = \frac{-ie^{-i2ka}}{ka} \sum_{n=1}^{\infty} (-1)^n (2n+1) \left[\frac{j_n(ka)}{h_n^{(2)}(ka)} - \frac{(ka\, j_n(ka))'}{(ka\, h_n^{(2)}(ka))'}\right] \qquad (4)$$

$\underline{G}$ is the scattering coefficient given in the present set of tables; it may also be written in the form $Ge^{i\phi}$ where G is a non-negative real number and $0 < \phi \leq 2\pi$. Note that in Equation 3 the phase reference point has been shifted from the center of the sphere to the point on the sphere nearest the radar. This shift in reference point makes ϕ much easier to compute and to interpret without in any way decreasing the precision of the information contained in the tables.

If one wishes to use $e^{-i\omega t}$ time dependence in his computations, he must use appropriate scattering coefficients. From the equations given by Stratton (Reference 4, page 594) it can be shown that

$$E_s = E_o \left(\frac{a}{2R}\right) e^{-i[\omega t - 2k(R-a)]}\, \underline{G}^* \qquad (5)$$

where $\underline{G}^* = Ge^{-i\phi}$ is the complex conjugate of $\underline{G}$. Thus the tables of scattering coefficients are useful in this case also, as only a sign change is required.

COMPUTATION OF THE SCATTERING COEFFICIENTS

The spherical Bessel functions used in Equation (4) cannot conveniently be computed, so an alternate approach has been employed. Through the use of the finite-series representation possible for spherical Bessel functions, as well as the derivative and recursion relationships they satisfy (Reference 4, pages 405, 406), alternate expressions much more amenable to digital computation can be found.[3] These expressions are exact and the only errors incurred in evaluating the scattering coefficients result from roundoff and from truncation of the infinite series. All computation was done to eight significant figures using floating-point arithmetic on the IBM-704 digital computer at CAL. The series (S_1 and S_2 given below) were checked after each addition of a new term and new terms were added until there was no change in the eighth significant figure. The number of terms required to secure the desired convergence of S_1 and of S_2 varied considerably, as may be seen from the following table:

ka	Terms in S_1	Terms in S_2
0.02	3	3
1	6	7
5	14	14
10	20	22
25	39	40
50	68	70

It was because of the large number of terms required for convergence at large ka values that the computational procedure outlined here was used: computation of the entire set of tables took less than twenty minutes of machine time.

[3] Much of the analysis which led to this computational approach was done by Dr. J. T. Fleck of CAL several years ago while he was investigating convergence properties of the Mie series.

The formulas used are:

$$R_0 = 0$$

$$R_1 = -\frac{1}{ka} = I_0$$

$$I_1 = -\frac{1}{(ka)^2}$$

$$Q_{n+1} = \frac{2n+1}{ka} Q_n - Q_{n-1}\,, \quad Q_n = R_n \text{ or } I_n$$

$$M_n = \frac{1}{2}\left\{(R_n^2 - I_n^2) + \frac{(ka)^2}{2n+1}\left[(R_{n-1}^2 - I_{n-1}^2) - (R_{n+1}^2 - I_{n+1}^2)\right]\right\}$$

$$P_n = \frac{1}{ka} + 2R_n(k_a I_{n+1} - (n+1)I_n)$$

$$S_1 = \frac{-1}{(ka)^2}\sum_{n=1}^{\infty}(-1)^n(2n+1)\frac{M_n}{M_n^2 + P_n^2}$$

$$S_2 = \frac{-1}{(ka)^2}\sum_{n=1}^{\infty}(-1)^n(2n+1)\frac{P_n}{M_n^2 + P_n^2}$$

$$G = \left[S_1^2 + S_2^2\right]^{1/2}$$

$$\phi = \tan^{-1}(-S_2/S_1)$$

Values of G and ϕ were computed and stored on a binary tape for use in the radar studies for which the computations were made. This tape was then used in the preparation of the tables and graphs included in this volume. In addition to the real and imaginary parts of $\underline{G}$ and the gain and phase values, the tables include the normalized radar cross section of the sphere:

$$\frac{\sigma}{\pi a^2} = |\underline{G}|^2 = G^2$$

SCATTERING-COEFFICIENT TABLES AND GRAPHS

The tables of scattering coefficients are essentially self explanatory. The complex quantity $\underline{G}$ is given in two forms; real and imaginary parts of $\underline{G}$ are given in floating-point notation to six significant figures, and amplitude and phase are given in fixed-point notation to six significant figures, in most cases. Where less figures appear, the desired values can be found to six figures from the real- and imaginary-part values. A detailed study of the accuracy of the values has not been carried out, but it is believed that nearly all of the values given are correct to six significant figures. One exception is the imaginary part of $\underline{G}$; when very small values are given (for example at ka = 12.44 where $Im\,\underline{G}$ is only 10^{-5} as large as $Re\,\underline{G}$) it is to be expected that there was near cancellation of terms in the summation S_2 and that, consequently, considerable roundoff error occurred. It is improbable that the user will be seriously troubled by this fact in most applications. The values given in all other columns of the table should be accurate to six significant figures. It must be recognized that in practice, perfectly conducting spheres are not available. For metallic spheres the scattering coefficient must be obtained using a more general formula then Equation 4 (see Reference 4, page 565). For most imperfectly conducting spheres, the six-significant figure accuracy of the scattering coefficient in these tables is not warranted; it is the author's opinion that for normal metals the results are correct to at least three significant figures.

The graphs preceding the tables permit a rapid assessment of the behavior of the scattering coefficients over the enitre range of the tables. Behavior of radar cross section is easily assessed because of the simple relationship between G and $\frac{\sigma}{\pi a^2} = G^2$.

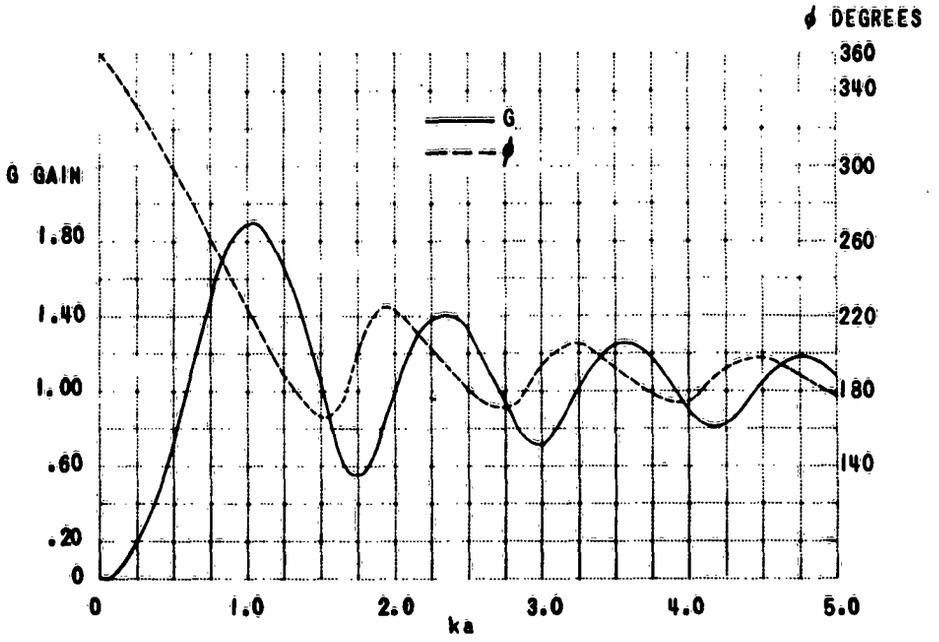

Figure 1 SCATTERING COEFFICIENT, $0 \leq ka \leq 5$

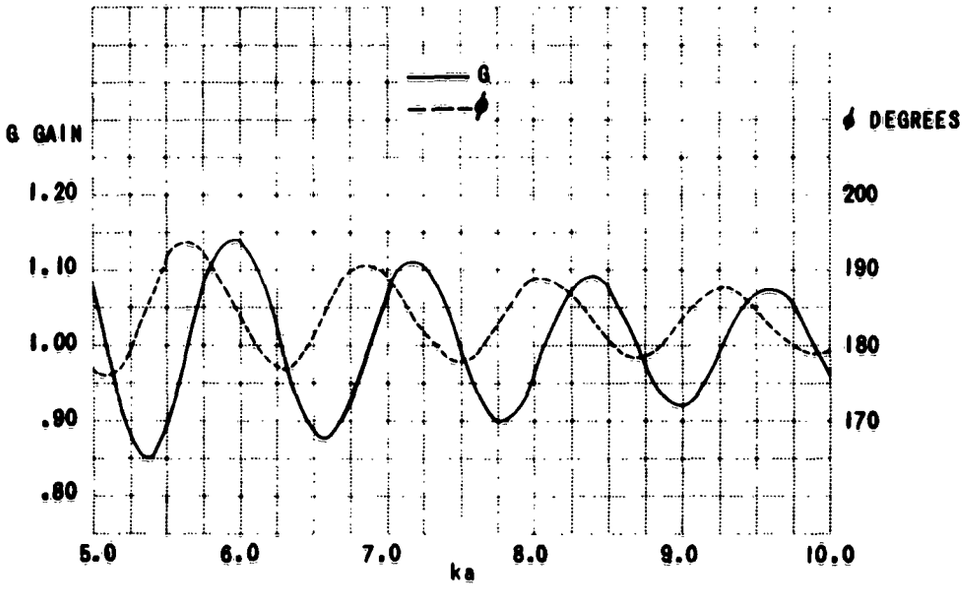

Figure 2 SCATTERING COEFFICIENT, $5 \leq ka \leq 10$

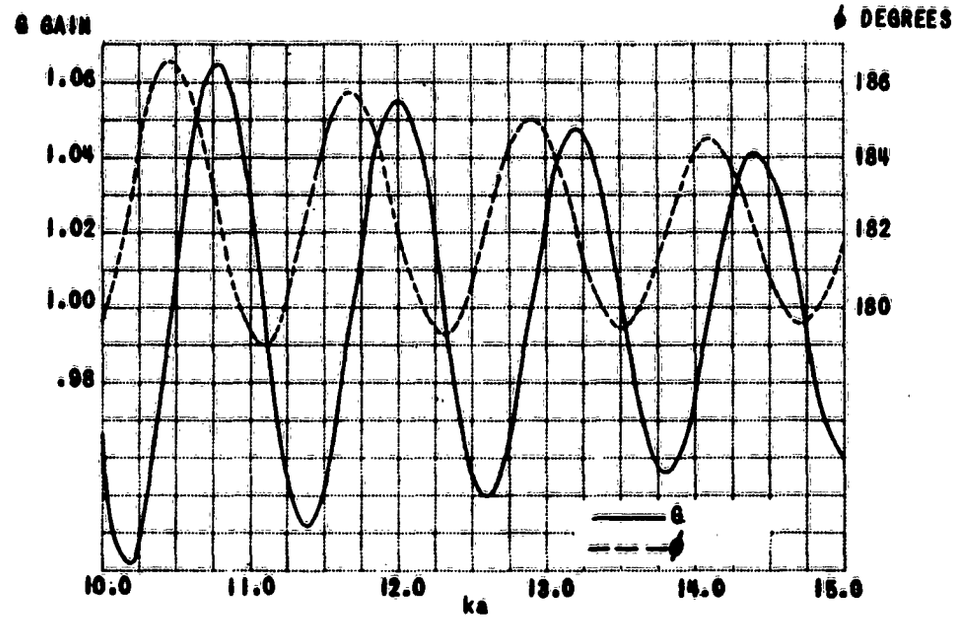

Figure 3 SCATTERING COEFFICIENT, $10 \leq ka \leq 15$

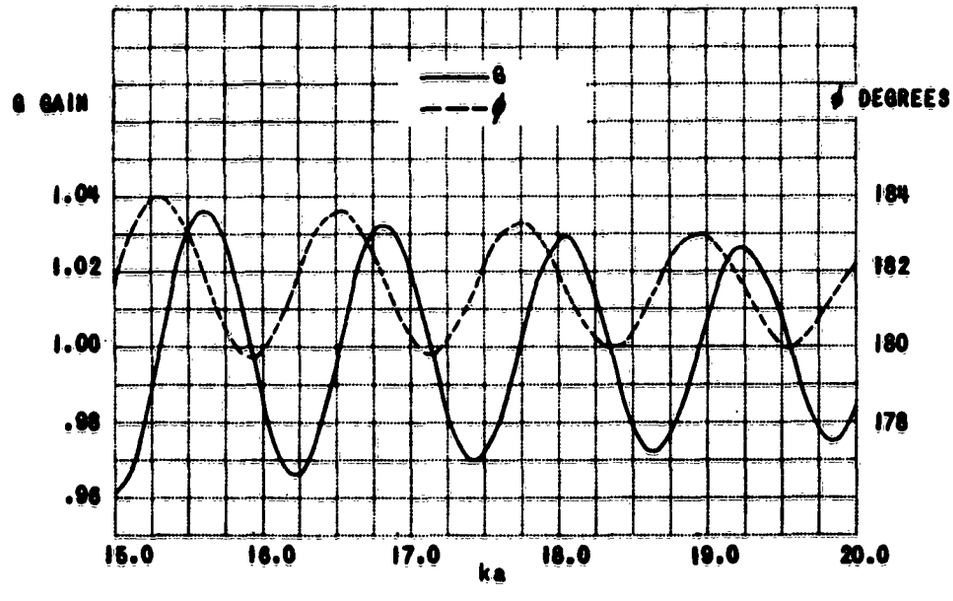

Figure 4 SCATTERING COEFFICIENT, $15 \leq ka \leq 20$

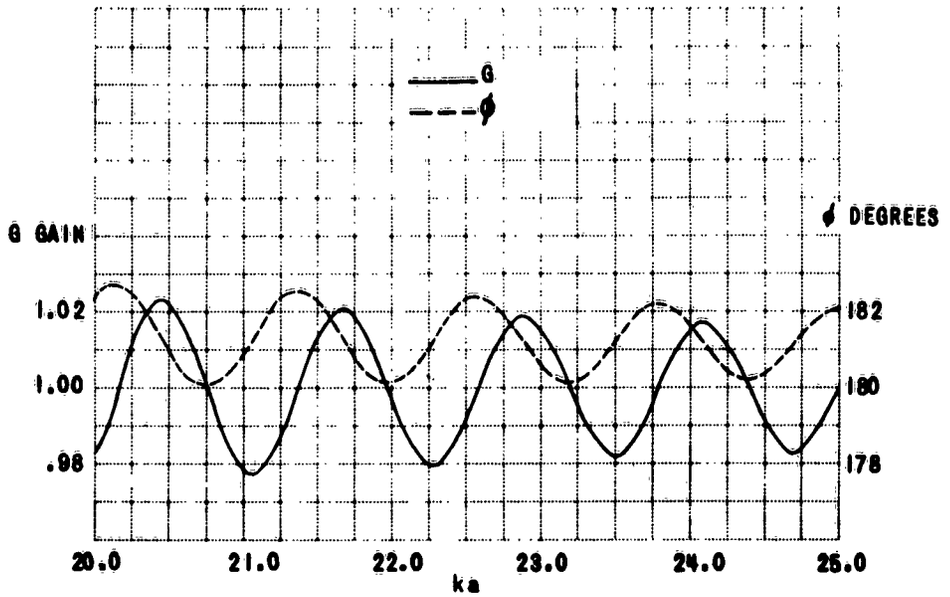

Figure 5 SCATTERING COEFFICIENT, $20 \leq ka \leq 25$

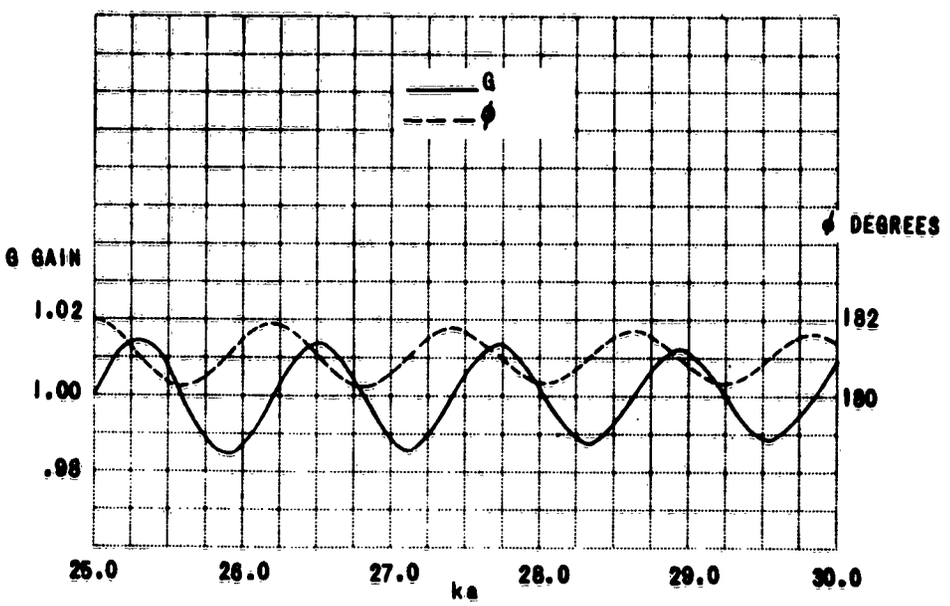

Figure 6 SCATTERING COEFFICIENT, $25 \leq ka \leq 30$

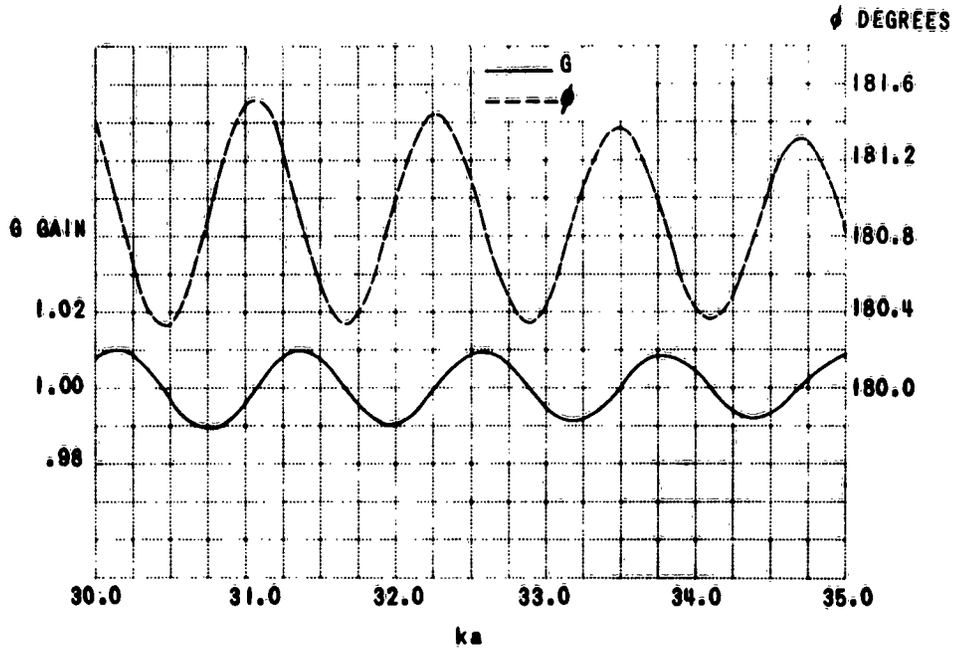

Figure 7 SCATTERING COEFFICIENT, $30 \leq ka \leq 35$

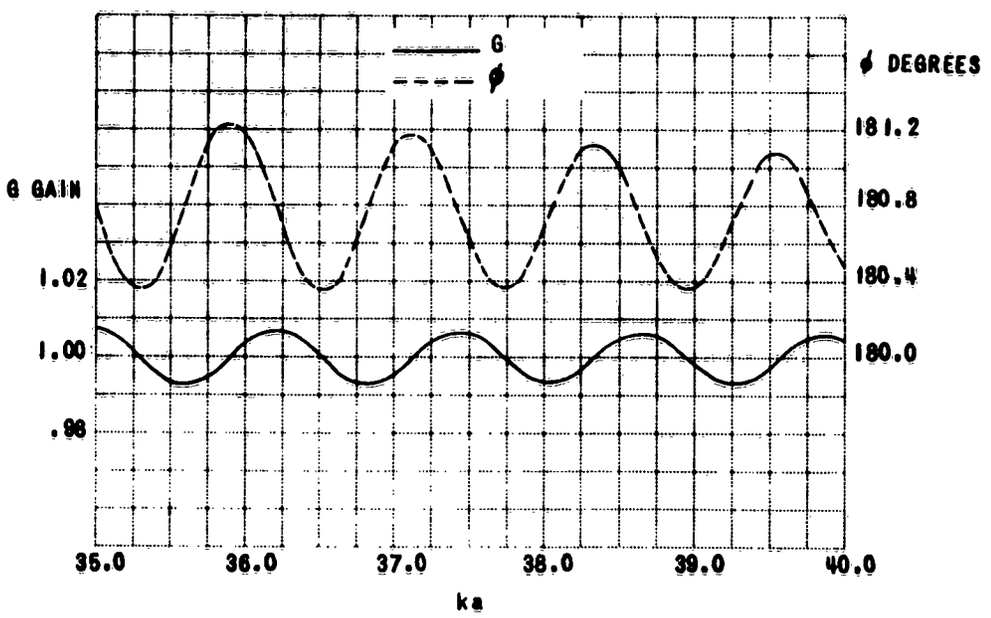

Figure 8 SCATTERING COEFFICIENT, $35 \leq ka \leq 40$

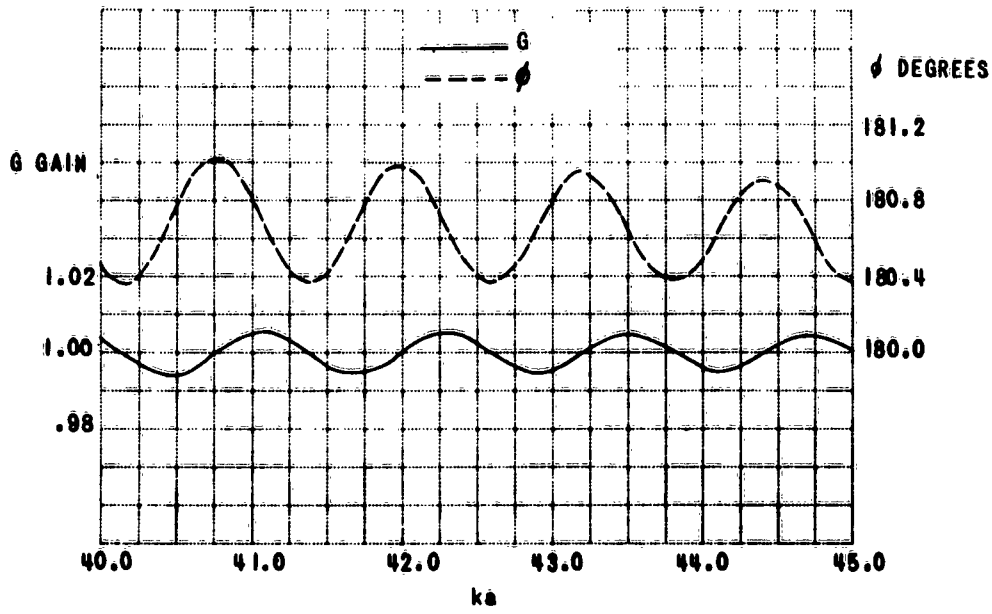

Figure 9 SCATTERING COEFFICIENT, $40 \leq ka \leq 45$

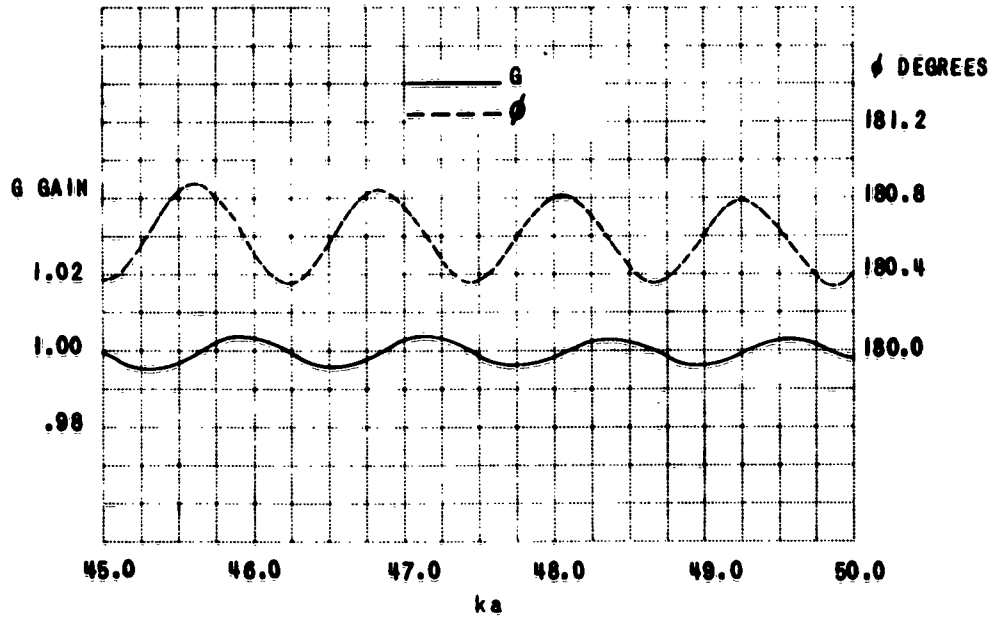

Figure 10 SCATTERING COEFFICIENT, $45 \leq ka \leq 50$

ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
0.	0.	0.	0.	6.28319	360.000	0.
0.02	1.19900E-03	-4.79886E-05	0.00120	6.24318	357.708	0.00000
0.04	4.78393E-03	-3.83636E-04	0.00480	6.20316	355.415	0.00002
0.06	1.07187E-02	-1.29324E-03	0.01080	6.16311	353.120	0.00012
0.08	1.89430E-02	-3.06036E-03	0.01919	6.12301	350.823	0.00037
0.10	2.93728E-02	-5.96449E-03	0.02997	6.08285	348.521	0.00090
0.12	4.18999E-02	-1.02797E-02	0.04314	6.04260	346.215	0.00186
0.14	5.63925E-02	-1.62732E-02	0.05869	6.00225	343.903	0.00344
0.16	7.26947E-02	-2.42041E-02	0.07662	5.96178	341.585	0.00587
0.18	9.06272E-02	-3.43219E-02	0.09691	5.92116	339.258	0.00939
0.20	1.09987E-01	-4.68653E-02	0.11956	5.88038	336.921	0.01429
0.22	1.30547E-01	-6.20604E-02	0.14455	5.83942	334.574	0.02089
0.24	1.52056E-01	-8.01192E-02	0.17187	5.79825	332.215	0.02954
0.26	1.74241E-01	-1.01238E-01	0.20152	5.75684	329.842	0.04061
0.28	1.96801E-01	-1.25595E-01	0.23346	5.71516	327.455	0.05450
0.30	2.19415E-01	-1.53350E-01	0.26769	5.67320	325.050	0.07166
0.32	2.41735E-01	-1.84638E-01	0.30418	5.63091	322.627	0.09253
0.34	2.63389E-01	-2.19570E-01	0.34291	5.58827	320.184	0.11759
0.36	2.83981E-01	-2.58231E-01	0.38383	5.54524	317.719	0.14733
0.38	3.03090E-01	-3.00669E-01	0.42693	5.50180	315.230	0.18227
0.40	3.20272E-01	-3.46899E-01	0.47214	5.45790	312.715	0.22291
0.42	3.35062E-01	-3.96896E-01	0.51942	5.41351	310.171	0.26979
0.44	3.46972E-01	-4.50585E-01	0.56870	5.36860	307.598	0.32342
0.46	3.55498E-01	-5.07842E-01	0.61990	5.32313	304.993	0.38428
0.48	3.60121E-01	-5.68482E-01	0.67295	5.27706	302.353	0.45286
0.50	3.60315E-01	-6.32257E-01	0.72772	5.23037	299.678	0.52958
0.52	3.55550E-01	-6.98847E-01	0.78409	5.18303	296.965	0.61480
0.54	3.45305E-01	-7.67854E-01	0.84192	5.13499	294.214	0.70883
0.56	3.29074E-01	-8.38794E-01	0.90104	5.08626	291.421	0.81187
0.58	3.06385E-01	-9.11100E-01	0.96124	5.03679	288.587	0.92397
0.60	2.76809E-01	-9.84110E-01	1.02230	4.98658	285.710	1.04509
0.62	2.39981E-01	-1.05707E 00	1.08397	4.93563	282.791	1.17499
0.64	1.95619E-01	-1.12915E 00	1.14597	4.88393	279.829	1.31325
0.66	1.43541E-01	-1.19942E 00	1.20798	4.83150	276.824	1.45922
0.68	8.36877E-02	-1.26691E 00	1.26967	4.77835	273.779	1.61206
0.70	1.61407E-02	-1.33057E 00	1.33066	4.72452	270.695	1.77067
0.72	-5.88612E-02	-1.38933E 00	1.39058	4.67005	267.574	1.93370
0.74	-1.40909E-01	-1.44214E 00	1.44900	4.61499	264.419	2.09961
0.76	-2.29418E-01	-1.48795E 00	1.50553	4.55941	261.235	2.26662
0.78	-3.23624E-01	-1.52580E 00	1.55974	4.50338	258.025	2.43279
0.80	-4.22596E-01	-1.55481E 00	1.61122	4.44700	254.794	2.59603
0.82	-5.25249E-01	-1.57426E 00	1.65958	4.39036	251.549	2.75419
0.84	-6.30372E-01	-1.58358E 00	1.70444	4.33355	248.294	2.90511
0.86	-7.36657E-01	-1.58240E 00	1.74547	4.27670	245.037	3.04666
0.88	-8.42740E-01	-1.57056E 00	1.78238	4.21990	241.783	3.17687
0.90	-9.47243E-01	-1.54811E 00	1.81492	4.16329	238.539	3.29392
0.92	-1.04881E 00	-1.51533E 00	1.84289	4.10696	235.312	3.39625
0.94	-1.14617E 00	-1.47271E 00	1.86617	4.05103	232.107	3.48257
0.96	-1.23814E 00	-1.42090E 00	1.88466	3.99561	228.932	3.55194
0.98	-1.32368E 00	-1.36073E 00	1.89834	3.94079	225.791	3.60371
1.00	-1.40189E 00	-1.29316E 00	1.90724	3.88667	222.690	3.63757

ka	Re G	Im G	G	ℓ_{RAD}	ℓ_{EG}	$\sigma/\pi a^2$
1.00	-1.40189E 00	-1.29316E 00	1.90724	3.88667	222.690	3.63757
1.02	-1.47208E 00	-1.21922E 00	1.91142	3.83331	219.633	3.65353
1.04	-1.53369E 00	-1.14003E 00	1.91099	3.78081	216.624	3.65188
1.06	-1.58637E 00	-1.05669E 00	1.90609	3.72921	213.668	3.63316
1.08	-1.62991E 00	-9.70331E-01	1.89688	3.67857	210.767	3.59814
1.10	-1.66426E 00	-8.82035E-01	1.88354	3.62894	207.923	3.54774
1.12	-1.68950E 00	-7.92838E-01	1.86628	3.58036	205.139	3.48302
1.14	-1.70585E 00	-7.03709E-01	1.84530	3.53285	202.417	3.40512
1.16	-1.71359E 00	-6.15544E-01	1.82079	3.48645	199.759	3.31527
1.18	-1.71309E 00	-5.29157E-01	1.79296	3.44119	197.165	3.21469
1.20	-1.70481E 00	-4.45281E-01	1.76200	3.39708	194.638	3.10464
1.22	-1.68921E 00	-3.64565E-01	1.72810	3.35415	192.179	2.98634
1.24	-1.66682E 00	-2.87584E-01	1.69145	3.31245	189.789	2.86100
1.26	-1.63818E 00	-2.14837E-01	1.65221	3.27199	187.471	2.72980
1.28	-1.60385E 00	-1.46755E-01	1.61055	3.23284	185.228	2.59386
1.30	-1.56438E 00	-8.37075E-02	1.56662	3.19505	183.063	2.45430
1.32	-1.52036E 00	-2.60056E-02	1.52058	3.15870	180.980	2.31216
1.34	-1.47234E 00	2.60913E-02	1.47257	3.12387	178.985	2.16846
1.36	-1.42090E 00	7.23720E-02	1.42274	3.09070	177.084	2.02419
1.38	-1.36661E 00	1.12670E-01	1.37124	3.05933	175.287	1.88031
1.40	-1.31003E 00	1.46861E-01	1.31823	3.02995	173.604	1.73774
1.42	-1.25173E 00	1.74861E-01	1.26388	3.00280	172.047	1.59740
1.44	-1.19226E 00	1.96625E-01	1.20837	2.97815	170.635	1.46016
1.46	-1.13220E 00	2.12150E-01	1.15191	2.95636	169.387	1.32689
1.48	-1.07209E 00	2.21469E-01	1.09473	2.93788	168.328	1.19843
1.50	-1.01249E 00	2.24661E-01	1.03712	2.92324	167.489	1.07561
1.52	-9.53942E-01	2.21843E-01	0.97940	2.91310	166.908	0.95922
1.54	-8.96985E-01	2.13179E-01	0.92197	2.90826	166.631	0.85003
1.56	-8.42145E-01	1.98878E-01	0.86531	2.90969	166.713	0.74876
1.58	-7.89934E-01	1.79195E-01	0.81000	2.91852	167.219	0.65611
1.60	-7.40842E-01	1.54433E-01	0.75677	2.93608	168.225	0.57270
1.62	-6.95336E-01	1.24943E-01	0.70647	2.96380	169.813	0.49910
1.64	-6.53849E-01	9.11235E-02	0.66017	3.00312	172.066	0.43582
1.66	-6.16779E-01	5.34173E-02	0.61909	3.05520	175.050	0.38327
1.68	-5.84479E-01	1.23100E-02	0.58461	3.12053	178.793	0.34177
1.70	-5.57252E-01	-3.16736E-02	0.55815	3.19837	183.253	0.31153
1.72	-5.35348E-01	-7.79758E-02	0.54100	3.28623	188.287	0.29268
1.74	-5.18951E-01	-1.26011E-01	0.53403	3.37980	193.648	0.28519
1.76	-5.08186E-01	-1.75175E-01	0.53753	3.47354	199.019	0.28894
1.78	-5.03106E-01	-2.24850E-01	0.55107	3.56189	204.081	0.30367
1.80	-5.03694E-01	-2.74418E-01	0.57360	3.64044	208.582	0.32901
1.82	-5.09864E-01	-3.23263E-01	0.60370	3.70665	212.375	0.36446
1.84	-5.21457E-01	-3.70788E-01	0.63984	3.75970	215.415	0.40940
1.86	-5.38251E-01	-4.16421E-01	0.68053	3.80006	217.728	0.46312
1.88	-5.59956E-01	-4.59621E-01	0.72443	3.82890	219.380	0.52480
1.90	-5.86229E-01	-4.99890E-01	0.77042	3.84766	220.455	0.59355
1.92	-6.16670E-01	-5.36776E-01	0.81756	3.85784	221.038	0.66841
1.94	-6.50839E-01	-5.69883E-01	0.86508	3.86077	221.206	0.74836
1.96	-6.88257E-01	-5.98872E-01	0.91233	3.85766	221.027	0.83234
1.98	-7.28416E-01	-6.23465E-01	0.95880	3.84951	220.561	0.91930
2.00	-7.70790E-01	-6.43449E-01	1.00406	3.83719	219.855	1.00814

ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
2.00	-7.70790E-01	-6.43449E-01	1.00406	3.83719	219.855	1.00814
2.02	-8.14841E-01	-6.58671E-01	1.04777	3.82140	218.950	1.09781
2.04	-8.60026E-01	-6.69045E-01	1.08962	3.80273	217.881	1.18727
2.06	-9.05810E-01	-6.74542E-01	1.12938	3.78168	216.674	1.27550
2.08	-9.51662E-01	-6.75194E-01	1.16685	3.75866	215.355	1.36155
2.10	-9.97075E-01	-6.71087E-01	1.20188	3.73401	213.943	1.44452
2.12	-1.04156E 00	-6.62357E-01	1.23433	3.70801	212.453	1.52356
2.14	-1.08465E 00	-6.49187E-01	1.26409	3.68092	210.901	1.59791
2.16	-1.12592E 00	-6.31805E-01	1.29108	3.65295	209.299	1.66688
2.18	-1.16497E 00	-6.10472E-01	1.31523	3.62427	207.656	1.72984
2.20	-1.20144E 00	-5.85486E-01	1.33651	3.59504	205.981	1.78625
2.22	-1.23500E 00	-5.57170E-01	1.35487	3.56540	204.283	1.83566
2.24	-1.26536E 00	-5.25873E-01	1.37029	3.53547	202.567	1.87769
2.26	-1.29229E 00	-4.91966E-01	1.38276	3.50535	200.842	1.91203
2.28	-1.31556E 00	-4.55831E-01	1.39229	3.47514	199.111	1.93848
2.30	-1.33502E 00	-4.17865E-01	1.39888	3.44494	197.380	1.95688
2.32	-1.35053E 00	-3.78476E-01	1.40256	3.41483	195.655	1.96717
2.34	-1.36201E 00	-3.38074E-01	1.40334	3.38489	193.940	1.96937
2.36	-1.36942E 00	-2.97072E-01	1.40127	3.35522	192.240	1.96356
2.38	-1.37274E 00	-2.55882E-01	1.39638	3.32588	190.559	1.94989
2.40	-1.37201E 00	-2.14911E-01	1.38874	3.29697	188.902	1.92859
2.42	-1.36729E 00	-1.74560E-01	1.37839	3.26857	187.276	1.89995
2.44	-1.35869E 00	-1.35220E-01	1.36540	3.24079	185.683	1.86432
2.46	-1.34635E 00	-9.72651E-02	1.34986	3.21371	184.132	1.82213
2.48	-1.33046E 00	-6.10562E-02	1.33186	3.18745	182.628	1.77386
2.50	-1.31122E 00	-2.69324E-02	1.31150	3.16213	181.177	1.72003
2.52	-1.28888E 00	4.78923E-03	1.28889	3.13788	179.787	1.66123
2.54	-1.26370E 00	3.38184E-02	1.26415	3.11484	178.467	1.59809
2.56	-1.23600E 00	5.98935E-02	1.23745	3.09317	177.226	1.53128
2.58	-1.20609E 00	8.27849E-02	1.20893	3.07306	176.073	1.46150
2.60	-1.17432E 00	1.02298E-01	1.17877	3.05470	175.021	1.38950
2.62	-1.14107E 00	1.18273E-01	1.14718	3.03831	174.082	1.31602
2.64	-1.10670E 00	1.30593E-01	1.11438	3.02413	173.270	1.24183
2.66	-1.07161E 00	1.39178E-01	1.08061	3.01244	172.600	1.16771
2.68	-1.03619E 00	1.43992E-01	1.04615	3.00351	172.089	1.09443
2.70	-1.00085E 00	1.45039E-01	1.01130	2.99768	171.754	1.02273
2.72	-9.65970E-01	1.42370E-01	0.97640	2.99526	171.616	0.95337
2.74	-9.31940E-01	1.36072E-01	0.94182	2.99661	171.693	0.88703
2.76	-8.99131E-01	1.26278E-01	0.90796	3.00206	172.005	0.82438
2.78	-8.67898E-01	1.13156E-01	0.87524	3.01194	172.572	0.76605
2.80	-8.38571E-01	9.69140E-02	0.84415	3.02653	173.408	0.71259
2.82	-8.11457E-01	7.77917E-02	0.81518	3.04602	174.524	0.66451
2.84	-7.86831E-01	5.60598E-02	0.78883	3.07047	175.925	0.62225
2.86	-7.64937E-01	3.20157E-02	0.76561	3.09976	177.603	0.58615
2.88	-7.45981E-01	5.97885E-03	0.74601	3.13358	179.541	0.55652
2.90	-7.30134E-01	-2.17127E-02	0.73046	3.17132	181.703	0.53357
2.92	-7.17527E-01	-5.07082E-02	0.71932	3.21215	184.042	0.51742
2.94	-7.08251E-01	-8.06476E-02	0.71283	3.25497	186.496	0.50812
2.96	-7.02357E-01	-1.11167E-01	0.71110	3.29857	188.994	0.50566
2.98	-6.99856E-01	-1.41902E-01	0.71410	3.34164	191.462	0.50993
3.00	-7.00722E-01	-1.72495E-01	0.72164	3.38296	193.829	0.52077

ka	Re G	Im G	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
3.00	-7.00722E-01	-1.72495E-01	0.72164	3.38296	193.829	0.52077
3.02	-7.04889E-01	-2.02595E-01	0.73343	3.42146	196.035	0.53791
3.04	-7.12258E-01	-2.31865E-01	0.74905	3.45631	198.032	0.56107
3.06	-7.22694E-01	-2.59984E-01	0.76804	3.48692	199.786	0.58988
3.08	-7.36033E-01	-2.86649E-01	0.78988	3.51297	201.278	0.62391
3.10	-7.52082E-01	-3.11581E-01	0.81407	3.53436	202.504	0.66271
3.12	-7.70622E-01	-3.34525E-01	0.84010	3.55114	203.466	0.70577
3.14	-7.91411E-01	-3.55252E-01	0.86749	3.56352	204.175	0.75254
3.16	-8.14191E-01	-3.73561E-01	0.89580	3.57175	204.646	0.80245
3.18	-8.38683E-01	-3.89281E-01	0.92462	3.57616	204.899	0.85493
3.20	-8.64599E-01	-4.02271E-01	0.95360	3.57707	204.951	0.90935
3.22	-8.91640E-01	-4.12422E-01	0.98240	3.57483	204.823	0.96511
3.24	-9.19500E-01	-4.19655E-01	1.01074	3.56975	204.532	1.02159
3.26	-9.47868E-01	-4.23923E-01	1.03835	3.56215	204.096	1.07816
3.28	-9.76437E-01	-4.25212E-01	1.06500	3.55230	203.532	1.13423
3.30	-1.00490E 00	-4.23536E-01	1.09050	3.54047	202.854	1.18920
3.32	-1.03295E 00	-4.18943E-01	1.11467	3.52690	202.077	1.24249
3.34	-1.06029E 00	-4.11507E-01	1.13735	3.51181	201.212	1.29356
3.36	-1.08665E 00	-4.01334E-01	1.15839	3.49538	200.271	1.34188
3.38	-1.11175E 00	-3.88553E-01	1.17769	3.47782	199.264	1.38697
3.40	-1.13534E 00	-3.73323E-01	1.19514	3.45928	198.202	1.42837
3.42	-1.15718E 00	-3.55824E-01	1.21065	3.43991	197.092	1.46568
3.44	-1.17706E 00	-3.36258E-01	1.22415	3.41986	195.943	1.49854
3.46	-1.19478E 00	-3.14850E-01	1.23557	3.39926	194.763	1.52664
3.48	-1.21018E 00	-2.91839E-01	1.24488	3.37823	193.558	1.54971
3.50	-1.22311E 00	-2.67483E-01	1.25202	3.35689	192.336	1.56756
3.52	-1.23346E 00	-2.42048E-01	1.25699	3.33537	191.102	1.58002
3.54	-1.24114E 00	-2.15814E-01	1.25977	3.31375	189.864	1.58701
3.56	-1.24610E 00	-1.89065E-01	1.26036	3.29217	188.627	1.58850
3.58	-1.24829E 00	-1.62090E-01	1.25877	3.27072	187.398	1.58451
3.60	-1.24774E 00	-1.35177E-01	1.25504	3.24951	186.183	1.57513
3.62	-1.24447E 00	-1.08614E-01	1.24920	3.22865	184.988	1.56051
3.64	-1.23855E 00	-8.26793E-02	1.24131	3.20825	183.819	1.54084
3.66	-1.23006E 00	-5.76452E-02	1.23141	3.18842	182.683	1.51638
3.68	-1.21913E 00	-3.37707E-02	1.21960	3.16929	181.587	1.48743
3.70	-1.20591E 00	-1.12997E-02	1.20596	3.15096	180.537	1.45434
3.72	-1.19056E 00	9.54173E-03	1.19059	3.13358	179.541	1.41752
3.74	-1.17327E 00	2.85478E-02	1.17362	3.11727	178.606	1.37738
3.76	-1.15427E 00	4.55356E-02	1.15517	3.10216	177.741	1.33441
3.78	-1.13378E 00	6.03464E-02	1.13538	3.08842	176.953	1.28909
3.80	-1.11204E 00	7.28481E-02	1.11442	3.07618	176.252	1.24194
3.82	-1.08931E 00	8.29361E-02	1.09247	3.06560	175.646	1.19348
3.84	-1.06586E 00	9.05342E-02	1.06970	3.05686	175.145	1.14426
3.86	-1.04195E 00	9.55950E-02	1.04633	3.05010	174.758	1.09481
3.88	-1.01786E 00	9.81002E-02	1.02258	3.04551	174.495	1.04567
3.90	-9.93854E-01	9.80606E-02	0.99868	3.04324	174.365	0.99736
3.92	-9.70195E-01	9.55153E-02	0.97489	3.04346	174.377	0.95040
3.94	-9.47141E-01	9.05304E-02	0.95146	3.04630	174.540	0.90527
3.96	-9.24941E-01	8.31987E-02	0.92867	3.05188	174.860	0.86244
3.98	-9.03826E-01	7.36371E-02	0.90682	3.06030	175.342	0.82232
4.00	-8.84017E-01	6.19858E-02	0.88619	3.07159	175.989	0.78533

ka	Re $\underline{G}$	Im $\underline{G}$	G	Φ_{RAD}	Φ_{DEG}	$\sigma/\pi a^2$
4.00	-8.84017E-01	6.19858E-02	0.88619	3.07159	175.989	0.78533
4.02	-8.65714E-01	4.84058E-02	0.86707	3.08574	176.800	0.75180
4.04	-8.49100E-01	3.30766E-02	0.84974	3.10266	177.769	0.72206
4.06	-8.34333E-01	1.61943E-02	0.83449	3.12219	178.888	0.69637
4.08	-8.21553E-01	-2.03090E-03	0.82156	3.14406	180.142	0.67495
4.10	-8.10876E-01	-2.13776E-02	0.81116	3.16795	181.510	0.65798
4.12	-8.02390E-01	-4.16153E-02	0.80347	3.19341	182.969	0.64556
4.14	-7.96163E-01	-6.25070E-02	0.79861	3.21994	184.489	0.63778
4.16	-7.92235E-01	-8.38121E-02	0.79666	3.24699	186.039	0.63466
4.18	-7.90621E-01	-1.05289E-01	0.79760	3.27399	187.586	0.63617
4.20	-7.91314E-01	-1.26697E-01	0.80139	3.30035	189.096	0.64223
4.22	-7.94280E-01	-1.47799E-01	0.80791	3.32557	190.541	0.65272
4.24	-7.99461E-01	-1.68364E-01	0.81700	3.34916	191.893	0.66748
4.26	-8.06777E-01	-1.88171E-01	0.82843	3.37073	193.129	0.68630
4.28	-8.16128E-01	-2.07007E-01	0.84197	3.39000	194.233	0.70892
4.30	-8.27391E-01	-2.24673E-01	0.85735	3.40674	195.192	0.73505
4.32	-8.40425E-01	-2.40984E-01	0.87429	3.42084	196.000	0.76439
4.34	-8.55072E-01	-2.55772E-01	0.89251	3.43224	196.653	0.79657
4.36	-8.71157E-01	-2.68885E-01	0.91171	3.44097	197.153	0.83121
4.38	-8.88492E-01	-2.80192E-01	0.93163	3.44708	197.503	0.86793
4.40	-9.06879E-01	-2.89583E-01	0.95199	3.45068	197.709	0.90629
4.42	-9.26107E-01	-2.96966E-01	0.97256	3.45189	197.779	0.94586
4.44	-9.45961E-01	-3.02276E-01	0.99308	3.45088	197.721	0.98621
4.46	-9.66219E-01	-3.05466E-01	1.01336	3.44780	197.544	1.02689
4.48	-9.86657E-01	-3.06517E-01	1.03317	3.44280	197.258	1.06744
4.50	-1.00705E 00	-3.05429E-01	1.05235	3.43607	196.872	1.10744
4.52	-1.02718E 00	-3.02229E-01	1.07072	3.42775	196.396	1.14643
4.54	-1.04682E 00	-2.96965E-01	1.08812	3.41801	195.838	1.18401
4.56	-1.06576E 00	-2.89706E-01	1.10444	3.40701	195.207	1.21978
4.58	-1.08381E 00	-2.80545E-01	1.11953	3.39488	194.512	1.25336
4.60	-1.10078E 00	-2.69594E-01	1.13331	3.38178	193.762	1.28439
4.62	-1.11648E 00	-2.56984E-01	1.14567	3.36783	192.962	1.31256
4.64	-1.13075E 00	-2.42863E-01	1.15654	3.35316	192.122	1.33758
4.66	-1.14346E 00	-2.27395E-01	1.16585	3.33790	191.247	1.35920
4.68	-1.15447E 00	-2.10758E-01	1.17355	3.32216	190.346	1.37721
4.70	-1.16368E 00	-1.93139E-01	1.17960	3.30607	189.424	1.39145
4.72	-1.17100E 00	-1.74739E-01	1.18397	3.28972	188.487	1.40178
4.74	-1.17638E 00	-1.55762E-01	1.18665	3.27323	187.543	1.40813
4.76	-1.17977E 00	-1.36417E-01	1.18763	3.25671	186.596	1.41046
4.78	-1.18115E 00	-1.16918E-01	1.18692	3.24026	185.653	1.40878
4.80	-1.18053E 00	-9.74740E-02	1.18454	3.22397	184.720	1.40315
4.82	-1.17793E 00	-7.82956E-02	1.18053	3.20796	183.803	1.39365
4.84	-1.17340E 00	-5.95858E-02	1.17491	3.19233	182.907	1.38042
4.86	-1.16702E 00	-4.15415E-02	1.16776	3.17717	182.039	1.36365
4.88	-1.15886E 00	-2.43496E-02	1.15912	3.16260	181.204	1.34355
4.90	-1.14904E 00	-8.18555E-03	1.14907	3.14872	180.408	1.32036
4.92	-1.13768E 00	6.78808E-03	1.13770	3.13563	179.658	1.29437
4.94	-1.12493E 00	2.04240E-02	1.12511	3.12344	178.960	1.26588
4.96	-1.11093E 00	3.25908E-02	1.11141	3.11226	178.320	1.23523
4.98	-1.09585E 00	4.31749E-02	1.09670	3.10221	177.744	1.20276
5.00	-1.07987E 00	5.20814E-02	1.08113	3.09340	177.239	1.16884

ka	Re G	Im G	G	Φ RAD	Φ DEG	$\sigma/\pi a^2$
5.00	-1.07987E 00	5.20814E-02	1.08113	3.09340	177.239	1.16884
5.02	-1.06317E 00	5.92342E-02	1.06482	3.08594	176.811	1.13385
5.04	-1.04595E 00	6.45774E-02	1.04794	3.07993	176.467	1.09817
5.06	-1.02838E 00	6.80755E-02	1.03063	3.07549	176.213	1.06220
5.08	-1.01067E 00	6.97131E-02	1.01307	3.07272	176.054	1.02632
5.10	-9.93018E-01	6.94948E-02	0.99545	3.07172	175.997	0.99092
5.12	-9.75607E-01	6.74455E-02	0.97794	3.07257	176.045	0.95636
5.14	-9.58625E-01	6.36094E-02	0.96073	3.07533	176.204	0.92301
5.16	-9.42253E-01	5.80495E-02	0.94404	3.08006	176.475	0.89121
5.18	-9.26663E-01	5.08463E-02	0.92806	3.08678	176.859	0.86129
5.20	-9.12017E-01	4.20975E-02	0.91299	3.09547	177.357	0.83355
5.22	-8.98464E-01	3.19160E-02	0.89903	3.10608	177.966	0.80826
5.24	-8.86142E-01	2.04294E-02	0.88638	3.11854	178.679	0.78566
5.26	-8.75173E-01	7.77774E-03	0.87521	3.13271	179.491	0.76599
5.28	-8.65664E-01	-5.88748E-03	0.86568	3.14839	180.390	0.74941
5.30	-8.57705E-01	-2.04054E-02	0.85795	3.16538	181.363	0.73607
5.32	-8.51370E-01	-3.56072E-02	0.85211	3.18339	182.395	0.72610
5.34	-8.46713E-01	-5.13183E-02	0.84827	3.20213	183.468	0.71956
5.36	-8.43771E-01	-6.73600E-02	0.84646	3.22126	184.564	0.71649
5.38	-8.42561E-01	-8.35514E-02	0.84669	3.24043	185.663	0.71689
5.40	-8.43084E-01	-9.97115E-02	0.84896	3.25932	186.745	0.72073
5.42	-8.45317E-01	-1.15661E-01	0.85319	3.27757	187.791	0.72794
5.44	-8.49224E-01	-1.31224E-01	0.85930	3.29490	188.784	0.73840
5.46	-8.54749E-01	-1.46230E-01	0.86717	3.31103	189.708	0.75198
5.48	-8.61818E-01	-1.60516E-01	0.87664	3.32574	190.551	0.76850
5.50	-8.70341E-01	-1.73929E-01	0.88755	3.33883	191.301	0.78775
5.52	-8.80215E-01	-1.86326E-01	0.89972	3.35020	191.952	0.80950
5.54	-8.91319E-01	-1.97574E-01	0.91295	3.35973	192.498	0.83349
5.56	-9.03524E-01	-2.07558E-01	0.92706	3.36740	192.938	0.85944
5.58	-9.16686E-01	-2.16173E-01	0.94183	3.37318	193.269	0.88704
5.60	-9.30653E-01	-2.23333E-01	0.95708	3.37711	193.494	0.91599
5.62	-9.45267E-01	-2.28968E-01	0.97260	3.37924	193.616	0.94596
5.64	-9.60361E-01	-2.33026E-01	0.98823	3.37964	193.639	0.97659
5.66	-9.75766E-01	-2.35469E-01	1.00378	3.37838	193.567	1.00756
5.68	-9.91310E-01	-2.36283E-01	1.01908	3.37558	193.407	1.03853
5.70	-1.00682E 00	-2.35467E-01	1.03399	3.37133	193.163	1.06914
5.72	-1.02213E 00	-2.33041E-01	1.04836	3.36576	192.844	1.09906
5.74	-1.03707E 00	-2.29042E-01	1.06206	3.35896	192.454	1.12798
5.76	-1.05148E 00	-2.23524E-01	1.07498	3.35105	192.001	1.15558
5.78	-1.06521E 00	-2.16556E-01	1.08700	3.34216	191.492	1.18158
5.80	-1.07811E 00	-2.08224E-01	1.09804	3.33238	190.931	1.20569
5.82	-1.09005E 00	-1.98628E-01	1.10800	3.32183	190.327	1.22767
5.84	-1.10091E 00	-1.87880E-01	1.11683	3.31062	189.685	1.24730
5.86	-1.11057E 00	-1.76106E-01	1.12445	3.29886	189.011	1.26438
5.88	-1.11894E 00	-1.63438E-01	1.13082	3.28663	188.310	1.27874
5.90	-1.12594E 00	-1.50022E-01	1.13589	3.27405	187.589	1.29026
5.92	-1.13151E 00	-1.36006E-01	1.13966	3.26122	186.854	1.29882
5.94	-1.13560E 00	-1.21545E-01	1.14208	3.24822	186.109	1.30435
5.96	-1.13817E 00	-1.06799E-01	1.14317	3.23515	185.361	1.30683
5.98	-1.13921E 00	-9.19263E-02	1.14291	3.22211	184.613	1.30625
6.00	-1.13872E 00	-7.70887E-02	1.14133	3.20919	183.873	1.30264

ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
6.00	-1.13872E 00	-7.70887E-02	1.14133	3.20919	183.873	1.30264
6.02	-1.13673E 00	-6.24436E-02	1.13844	3.19647	183.144	1.29606
6.04	-1.13326E 00	-4.81457E-02	1.13428	3.18405	182.433	1.28660
6.06	-1.12837E 00	-3.43449E-02	1.12889	3.17202	181.743	1.27440
6.08	-1.12212E 00	-2.11836E-02	1.12232	3.16047	181.082	1.25960
6.10	-1.11459E 00	-8.79667E-03	1.11462	3.14948	180.452	1.24238
6.12	-1.10587E 00	2.69064E-03	1.10587	3.13916	179.861	1.22296
6.14	-1.09607E 00	1.31639E-02	1.09615	3.12958	179.312	1.20154
6.16	-1.08530E 00	2.25210E-02	1.08554	3.12084	178.811	1.17839
6.18	-1.07369E 00	3.06720E-02	1.07413	3.11303	178.364	1.15376
6.20	-1.06137E 00	3.75411E-02	1.06204	3.10624	177.974	1.12792
6.22	-1.04848E 00	4.30666E-02	1.04936	3.10054	177.648	1.10117
6.24	-1.03516E 00	4.72021E-02	1.03624	3.09603	177.389	1.07379
6.26	-1.02157E 00	4.99163E-02	1.02279	3.09277	177.203	1.04609
6.28	-1.00784E 00	5.11935E-02	1.00914	3.09084	177.092	1.01837
6.30	-9.94140E-01	5.10335E-02	0.99545	3.09030	177.061	0.99092
6.32	-9.80607E-01	4.94517E-02	0.98185	3.09121	177.113	0.96404
6.34	-9.67390E-01	4.64787E-02	0.96851	3.09358	177.249	0.93800
6.36	-9.54629E-01	4.21599E-02	0.95556	3.09746	177.471	0.91309
6.38	-9.42461E-01	3.65552E-02	0.94317	3.10283	177.779	0.88957
6.40	-9.31014E-01	2.97374E-02	0.93149	3.10966	178.171	0.86767
6.42	-9.20406E-01	2.17924E-02	0.92066	3.11792	178.644	0.84762
6.44	-9.10747E-01	1.28178E-02	0.91084	3.12752	179.194	0.82962
6.46	-9.02136E-01	2.92127E-03	0.90214	3.13835	179.814	0.81386
6.48	-8.94659E-01	-7.77961E-03	0.89469	3.15029	180.498	0.80048
6.50	-8.88389E-01	-1.91600E-02	0.88860	3.16316	181.236	0.78960
6.52	-8.83385E-01	-3.10878E-02	0.88393	3.17677	182.016	0.78134
6.54	-8.79694E-01	-4.34266E-02	0.88076	3.19092	182.826	0.77575
6.56	-8.77345E-01	-5.60357E-02	0.87913	3.20538	183.654	0.77287
6.58	-8.76355E-01	-6.87730E-02	0.87905	3.21991	184.487	0.77273
6.60	-8.76725E-01	-8.14959E-02	0.88050	3.23428	185.311	0.77529
6.62	-8.78440E-01	-9.40627E-02	0.88346	3.24827	186.112	0.78050
6.64	-8.81471E-01	-1.06335E-01	0.88786	3.26165	186.879	0.78830
6.66	-8.85777E-01	-1.18177E-01	0.89363	3.27423	187.599	0.79857
6.68	-8.91300E-01	-1.29462E-01	0.90065	3.28584	188.264	0.81118
6.70	-8.97970E-01	-1.40067E-01	0.90883	3.29633	188.866	0.82597
6.72	-9.05707E-01	-1.49880E-01	0.91802	3.30559	189.396	0.84277
6.74	-9.14417E-01	-1.58795E-01	0.92810	3.31353	189.852	0.86137
6.76	-9.23998E-01	-1.66721E-01	0.93892	3.32011	190.228	0.88157
6.78	-9.34339E-01	-1.73575E-01	0.95033	3.32527	190.524	0.90312
6.80	-9.45321E-01	-1.79289E-01	0.96217	3.32903	190.739	0.92578
6.82	-9.56819E-01	-1.83807E-01	0.97431	3.33138	190.874	0.94929
6.84	-9.68703E-01	-1.87086E-01	0.98660	3.33237	190.931	0.97339
6.86	-9.80841E-01	-1.89097E-01	0.99890	3.33205	190.912	0.99781
6.88	-9.93099E-01	-1.89827E-01	1.01108	3.33046	190.821	1.02228
6.90	-1.00534E 00	-1.89274E-01	1.02300	3.32768	190.662	1.04654
6.92	-1.01744E 00	-1.87451E-01	1.03456	3.32379	190.439	1.07032
6.94	-1.02925E 00	-1.84388E-01	1.04564	3.31886	190.157	1.09336
6.96	-1.04066E 00	-1.80123E-01	1.05614	3.31298	189.820	1.11542
6.98	-1.05155E 00	-1.74711E-01	1.06596	3.30623	189.433	1.13628
7.00	-1.06179E 00	-1.68216E-01	1.07503	3.29871	189.002	1.15570

Ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ RAD	ϕ DEG	$\sigma/\pi a^2$
7.00	-1.06179E 00	-1.68216E-01	1.07503	3.29871	189.002	1.15570
7.02	-1.07129E 00	-1.60715E-01	1.08327	3.29050	188.532	1.17348
7.04	-1.07994E 00	-1.52295E-01	1.09062	3.28169	188.027	1.18946
7.06	-1.08766E 00	-1.43052E-01	1.09702	3.27236	187.493	1.20346
7.08	-1.09437E 00	-1.33090E-01	1.10243	3.26261	186.934	1.21535
7.10	-1.10000E 00	-1.22521E-01	1.10680	3.25252	186.356	1.22501
7.12	-1.10451E 00	-1.11461E-01	1.11012	3.24217	185.763	1.23236
7.14	-1.10784E 00	-1.00033E-01	1.11235	3.23164	185.160	1.23732
7.16	-1.10998E 00	-8.83606E-02	1.11349	3.22103	184.551	1.23987
7.18	-1.11091E 00	-7.65697E-02	1.11355	3.21041	183.943	1.23999
7.20	-1.11063E 00	-6.47878E-02	1.11252	3.19986	183.339	1.23769
7.22	-1.10914E 00	-5.31401E-02	1.11042	3.18947	182.743	1.23302
7.24	-1.10648E 00	-4.17500E-02	1.10727	3.17931	182.161	1.22604
7.26	-1.10268E 00	-3.07375E-02	1.10311	3.16946	181.597	1.21685
7.28	-1.09779E 00	-2.02174E-02	1.09797	3.16001	181.055	1.20555
7.30	-1.09187E 00	-1.02986E-02	1.09191	3.15102	180.540	1.19228
7.32	-1.08499E 00	-1.08226E-03	1.08499	3.14259	180.057	1.17719
7.34	-1.07723E 00	7.33776E-03	1.07725	3.13478	179.610	1.16047
7.36	-1.06868E 00	1.48775E-02	1.06879	3.12767	179.202	1.14230
7.38	-1.05945E 00	2.14632E-02	1.05967	3.12134	178.839	1.12289
7.40	-1.04963E 00	2.70314E-02	1.04998	3.11585	178.525	1.10246
7.42	-1.03934E 00	3.15303E-02	1.03982	3.11127	178.262	1.08122
7.44	-1.02869E 00	3.49203E-02	1.02929	3.10766	178.056	1.05943
7.46	-1.01781E 00	3.71736E-02	1.01848	3.10509	177.908	1.03731
7.48	-1.00680E 00	3.82756E-02	1.00753	3.10359	177.823	1.01511
7.50	-9.95792E-01	3.82236E-02	0.99653	3.10323	177.802	0.99306
7.52	-9.84907E-01	3.70280E-02	0.98560	3.10401	177.847	0.97141
7.54	-9.74261E-01	3.47115E-02	0.97488	3.10598	177.959	0.95039
7.56	-9.63969E-01	3.13086E-02	0.96448	3.10913	178.140	0.93022
7.58	-9.54139E-01	2.68658E-02	0.95452	3.11344	178.387	0.91110
7.60	-9.44878E-01	2.14403E-02	0.94512	3.11891	178.700	0.89325
7.62	-9.36280E-01	1.50999E-02	0.93640	3.12547	179.076	0.87685
7.64	-9.28436E-01	7.92192E-03	0.92847	3.13306	179.511	0.86206
7.66	-9.21426E-01	-7.91553E-06	0.92143	3.14160	180.000	0.84903
7.68	-9.15321E-01	-8.59624E-03	0.91536	3.15098	180.538	0.83789
7.70	-9.10181E-01	-1.77427E-02	0.91035	3.16108	181.117	0.82874
7.72	-9.06056E-01	-2.73424E-02	0.90647	3.17176	181.729	0.82168
7.74	-9.02983E-01	-3.72854E-02	0.90375	3.18286	182.364	0.81677
7.76	-9.00989E-01	-4.74591E-02	0.90224	3.19422	183.015	0.81403
7.78	-9.00088E-01	-5.77496E-02	0.90194	3.20566	183.671	0.81349
7.80	-9.00282E-01	-6.80418E-02	0.90285	3.21703	184.322	0.81514
7.82	-9.01562E-01	-7.82220E-02	0.90495	3.22814	184.959	0.81893
7.84	-9.03907E-01	-8.81783E-02	0.90820	3.23884	185.572	0.82482
7.86	-9.07282E-01	-9.78022E-02	0.91254	3.24897	186.153	0.83273
7.88	-9.11645E-01	-1.06989E-01	0.91790	3.25842	186.694	0.84254
7.90	-9.16941E-01	-1.15642E-01	0.92420	3.26705	187.188	0.85415
7.92	-9.23107E-01	-1.23666E-01	0.93135	3.27477	187.630	0.86742
7.94	-9.30068E-01	-1.30978E-01	0.93925	3.28150	188.016	0.88218
7.96	-9.37745E-01	-1.37502E-01	0.94777	3.28719	188.342	0.89827
7.98	-9.46048E-01	-1.43171E-01	0.95682	3.29179	188.606	0.91550
8.00	-9.54883E-01	-1.47926E-01	0.96627	3.29529	188.806	0.93368

Ka	Re G	Im G	G	Φ RAD	Φ DEG	σ/πa²
8.00	-9.54883E-01	-1.47926E-01	0.96627	3.29529	188.806	0.93368
8.02	-9.64152E-01	-1.51721E-01	0.97602	3.29768	188.943	0.95261
8.04	-9.73750E-01	-1.54520E-01	0.98593	3.29897	189.017	0.97206
8.06	-9.83570E-01	-1.56296E-01	0.99591	3.29918	189.029	0.99184
8.08	-9.93505E-01	-1.57036E-01	1.00584	3.29836	188.982	1.01171
8.10	-1.00345E 00	-1.56738E-01	1.01561	3.29654	188.878	1.03147
8.12	-1.01329E 00	-1.55408E-01	1.02514	3.29378	188.720	1.05090
8.14	-1.02292E 00	-1.53068E-01	1.03431	3.29013	188.511	1.06979
8.16	-1.03224E 00	-1.49747E-01	1.04305	3.28566	188.254	1.08795
8.18	-1.04115E 00	-1.45486E-01	1.05127	3.28043	187.955	1.10516
8.20	-1.04956E 00	-1.40336E-01	1.05890	3.27451	187.616	1.12127
8.22	-1.05737E 00	-1.34356E-01	1.06588	3.26798	187.242	1.13609
8.24	-1.06452E 00	-1.27616E-01	1.07214	3.26090	186.836	1.14948
8.26	-1.07091E 00	-1.20191E-01	1.07764	3.25336	186.404	1.16130
8.28	-1.07650E 00	-1.12165E-01	1.08233	3.24541	185.948	1.17143
8.30	-1.08122E 00	-1.03627E-01	1.08617	3.23714	185.475	1.17977
8.32	-1.08502E 00	-9.46722E-02	1.08915	3.22863	184.987	1.18624
8.34	-1.08788E 00	-8.53977E-02	1.09123	3.21993	184.488	1.19078
8.36	-1.08977E 00	-7.59053E-02	1.09241	3.21113	183.984	1.19335
8.38	-1.09066E 00	-6.62977E-02	1.09268	3.20230	183.479	1.19394
8.40	-1.09057E 00	-5.66785E-02	1.09204	3.19352	182.975	1.19255
8.42	-1.08949E 00	-4.71508E-02	1.09051	3.18484	182.478	1.18922
8.44	-1.08745E 00	-3.78161E-02	1.08810	3.17635	181.992	1.18397
8.46	-1.08447E 00	-2.87731E-02	1.08485	3.16812	181.520	1.17689
8.48	-1.08058E 00	-2.01167E-02	1.08077	3.16021	181.067	1.16807
8.50	-1.07585E 00	-1.19374E-02	1.07592	3.15269	180.636	1.15760
8.52	-1.07032E 00	-4.31954E-03	1.07033	3.14563	180.231	1.14561
8.54	-1.06406E 00	2.65894E-03	1.06406	3.13909	179.857	1.13223
8.56	-1.05714E 00	8.92765E-03	1.05718	3.13315	179.516	1.11763
8.58	-1.04965E 00	1.44242E-02	1.04975	3.12785	179.213	1.10197
8.60	-1.04166E 00	1.90951E-02	1.04184	3.12326	178.950	1.08542
8.62	-1.03327E 00	2.28965E-02	1.03352	3.11944	178.731	1.06817
8.64	-1.02457E 00	2.57933E-02	1.02489	3.11642	178.558	1.05041
8.66	-1.01566E 00	2.77616E-02	1.01604	3.11427	178.434	1.03233
8.68	-1.00663E 00	2.87872E-02	1.00704	3.11300	178.362	1.01413
8.70	-9.97587E-01	2.88663E-02	0.99800	3.11266	178.343	0.99601
8.72	-9.88628E-01	2.80055E-02	0.98902	3.11327	178.377	0.97817
8.74	-9.79848E-01	2.62213E-02	0.98020	3.11484	178.467	0.96079
8.76	-9.71342E-01	2.35407E-02	0.97163	3.11736	178.612	0.94406
8.78	-9.63202E-01	1.99996E-02	0.96341	3.12083	178.810	0.92816
8.80	-9.55513E-01	1.56436E-02	0.95564	3.12522	179.062	0.91325
8.82	-9.48356E-01	1.05266E-02	0.94841	3.13049	179.364	0.89949
8.84	-9.41805E-01	4.71026E-03	0.94182	3.13659	179.713	0.88702
8.86	-9.35928E-01	-1.73620E-03	0.93593	3.14345	180.106	0.87596
8.88	-9.30784E-01	-8.73774E-03	0.93082	3.15098	180.538	0.86643
8.90	-9.26424E-01	-1.62132E-02	0.92657	3.15909	181.003	0.85852
8.92	-9.22891E-01	-2.40771E-02	0.92321	3.16768	181.494	0.85231
8.94	-9.20218E-01	-3.22404E-02	0.92078	3.17661	182.007	0.84784
8.96	-9.18429E-01	-4.06113E-02	0.91933	3.18578	182.532	0.84516
8.98	-9.17537E-01	-4.90962E-02	0.91885	3.19505	183.063	0.84428
9.00	-9.17547E-01	-5.76011E-02	0.91935	3.20429	183.592	0.84521

ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
9.00	-9.17547E-01	-5.76011E-02	0.91935	3.20429	183.592	0.84521
9.02	-9.18453E-01	-6.60322E-02	0.92082	3.21336	184.112	0.84792
9.04	-9.20239E-01	-7.42975E-02	0.92323	3.22216	184.616	0.85236
9.06	-9.22881E-01	-8.23065E-02	0.92654	3.23054	185.096	0.85848
9.08	-9.26345E-01	-8.99732E-02	0.93070	3.23842	185.548	0.86621
9.10	-9.30589E-01	-9.72148E-02	0.93565	3.24568	185.964	0.87545
9.12	-9.35561E-01	-1.03954E-01	0.94132	3.25225	186.340	0.88608
9.14	-9.41204E-01	-1.10120E-01	0.94762	3.25806	186.673	0.89799
9.16	-9.47451E-01	-1.15648E-01	0.95448	3.26305	186.959	0.91104
9.18	-9.54233E-01	-1.20480E-01	0.96181	3.26719	187.196	0.92508
9.20	-9.61472E-01	-1.24567E-01	0.96951	3.27043	187.382	0.93995
9.22	-9.69087E-01	-1.27867E-01	0.97749	3.27278	187.517	0.95548
9.24	-9.76993E-01	-1.30349E-01	0.98565	3.27423	187.599	0.97151
9.26	-9.85103E-01	-1.31988E-01	0.99391	3.27478	187.631	0.98785
9.28	-9.93327E-01	-1.32771E-01	1.00216	3.27447	187.613	1.00433
9.30	-1.00158E 00	-1.32693E-01	1.01033	3.27331	187.547	1.02076
9.32	-1.00976E 00	-1.31758E-01	1.01832	3.27134	187.434	1.03698
9.34	-1.01779E 00	-1.29981E-01	1.02606	3.26861	187.278	1.05279
9.36	-1.02558E 00	-1.27383E-01	1.03346	3.26517	187.080	1.06804
9.38	-1.03305E 00	-1.23998E-01	1.04047	3.26105	186.845	1.08257
9.40	-1.04012E 00	-1.19865E-01	1.04700	3.25633	186.574	1.09621
9.42	-1.04671E 00	-1.15032E-01	1.05301	3.25105	186.272	1.10883
9.44	-1.05275E 00	-1.09554E-01	1.05844	3.24528	185.941	1.12029
9.46	-1.05819E 00	-1.03493E-01	1.06324	3.23908	185.586	1.13047
9.48	-1.06296E 00	-9.69170E-02	1.06737	3.23252	185.210	1.13928
9.50	-1.06702E 00	-8.98998E-02	1.07081	3.22565	184.816	1.14662
9.52	-1.07034E 00	-8.25184E-02	1.07351	3.21854	184.409	1.15243
9.54	-1.07286E 00	-7.48540E-02	1.07547	3.21125	183.991	1.15664
9.56	-1.07459E 00	-6.69903E-02	1.07667	3.20385	183.567	1.15922
9.58	-1.07549E 00	-5.90127E-02	1.07711	3.19641	183.141	1.16016
9.60	-1.07557E 00	-5.10071E-02	1.07678	3.18898	182.715	1.15945
9.62	-1.07482E 00	-4.30599E-02	1.07569	3.18163	182.294	1.15710
9.64	-1.07327E 00	-3.52555E-02	1.07385	3.17443	181.881	1.15316
9.66	-1.07094E 00	-2.76768E-02	1.07129	3.16743	181.480	1.14767
9.68	-1.06784E 00	-2.04037E-02	1.06804	3.16070	181.095	1.14070
9.70	-1.06403E 00	-1.35120E-02	1.06411	3.15429	180.728	1.13234
9.72	-1.05954E 00	-7.07329E-03	1.05957	3.14827	180.382	1.12268
9.74	-1.05444E 00	-1.15373E-03	1.05444	3.14269	180.063	1.11184
9.76	-1.04877E 00	4.18675E-03	1.04878	3.13760	179.771	1.09993
9.78	-1.04260E 00	8.89476E-03	1.04264	3.13306	179.511	1.08710
9.80	-1.03601E 00	1.29238E-02	1.03609	3.12912	179.285	1.07349
9.82	-1.02907E 00	1.62355E-02	1.02920	3.12582	179.096	1.05925
9.84	-1.02185E 00	1.87993E-02	1.02202	3.12320	178.946	1.04453
9.86	-1.01444E 00	2.05925E-02	1.01465	3.12130	178.837	1.02951
9.88	-1.00691E 00	2.16016E-02	1.00714	3.12014	178.771	1.01433
9.90	-9.99350E-01	2.18212E-02	0.99959	3.11976	178.749	0.99918
9.92	-9.91841E-01	2.12548E-02	0.99207	3.12017	178.772	0.98420
9.94	-9.84463E-01	1.99138E-02	0.98466	3.12137	178.841	0.96956
9.96	-9.77296E-01	1.78187E-02	0.97746	3.12336	178.955	0.95543
9.98	-9.70417E-01	1.49974E-02	0.97053	3.12614	179.115	0.94193
10.00	-9.63897E-01	1.14857E-02	0.96397	3.12968	179.317	0.92923

ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
10.00	-9.63897E-01	1.14857E-02	0.96397	3.12968	179.317	0.92923
10.02	-9.57807E-01	7.32697E-03	0.95783	3.13394	179.562	0.91745
10.04	-9.52209E-01	2.57070E-03	0.95221	3.13889	179.845	0.90671
10.06	-9.47160E-01	-2.72697E-03	0.94716	3.14447	180.165	0.89712
10.08	-9.42714E-01	-8.50461E-03	0.94275	3.15061	180.517	0.88878
10.10	-9.38914E-01	-1.46959E-02	0.93903	3.15724	180.897	0.88177
10.12	-9.35798E-01	-2.12303E-02	0.93604	3.16428	181.300	0.87617
10.14	-9.33396E-01	-2.80339E-02	0.93382	3.17162	181.720	0.87201
10.16	-9.31730E-01	-3.50306E-02	0.93239	3.17917	182.153	0.86935
10.18	-9.30813E-01	-4.21425E-02	0.93177	3.18684	182.592	0.86819
10.20	-9.30653E-01	-4.92911E-02	0.93196	3.19451	183.032	0.86854
10.22	-9.31246E-01	-5.63971E-02	0.93295	3.20208	183.466	0.87040
10.24	-9.32582E-01	-6.33832E-02	0.93473	3.20945	183.888	0.87373
10.26	-9.34641E-01	-7.01734E-02	0.93727	3.21653	184.294	0.87848
10.28	-9.37399E-01	-7.66938E-02	0.94053	3.22323	184.677	0.88460
10.30	-9.40821E-01	-8.28741E-02	0.94446	3.22945	185.034	0.89201
10.32	-9.44867E-01	-8.86486E-02	0.94902	3.23514	185.360	0.90063
10.34	-9.49489E-01	-9.39556E-02	0.95413	3.24023	185.651	0.91036
10.36	-9.54634E-01	-9.87389E-02	0.95973	3.24466	185.905	0.92107
10.38	-9.60243E-01	-1.02949E-01	0.96575	3.24840	186.119	0.93266
10.40	-9.66253E-01	-1.06542E-01	0.97211	3.25141	186.292	0.94500
10.42	-9.72598E-01	-1.09481E-01	0.97874	3.25369	186.423	0.95793
10.44	-9.79205E-01	-1.11737E-01	0.98556	3.25521	186.510	0.97133
10.46	-9.86002E-01	-1.13289E-01	0.99249	3.25599	186.554	0.98503
10.48	-9.92915E-01	-1.14121E-01	0.99945	3.25603	186.557	0.99890
10.50	-9.99867E-01	-1.14229E-01	1.00637	3.25534	186.517	1.01278
10.52	-1.00678E 00	-1.13613E-01	1.01317	3.25397	186.438	1.02652
10.54	-1.01359E 00	-1.12285E-01	1.01979	3.25192	186.321	1.03997
10.56	-1.02021E 00	-1.10259E-01	1.02615	3.24925	186.168	1.05299
10.58	-1.02658E 00	-1.07563E-01	1.03220	3.24599	185.982	1.06543
10.60	-1.03262E 00	-1.04227E-01	1.03787	3.24219	185.764	1.07717
10.62	-1.03828E 00	-1.00290E-01	1.04311	3.23789	185.517	1.08808
10.64	-1.04349E 00	-9.57969E-02	1.04788	3.23314	185.245	1.09805
10.66	-1.04821E 00	-9.07992E-02	1.05213	3.22800	184.951	1.10698
10.68	-1.05237E 00	-8.53524E-02	1.05583	3.22252	184.637	1.11477
10.70	-1.05595E 00	-7.95170E-02	1.05893	3.21675	184.306	1.12134
10.72	-1.05889E 00	-7.33578E-02	1.06143	3.21076	183.963	1.12664
10.74	-1.06119E 00	-6.69420E-02	1.06330	3.20459	183.610	1.13060
10.76	-1.06281E 00	-6.03399E-02	1.06452	3.19831	183.249	1.13320
10.78	-1.06374E 00	-5.36227E-02	1.06509	3.19196	182.886	1.13441
10.80	-1.06397E 00	-4.68633E-02	1.06500	3.18561	182.522	1.13423
10.82	-1.06351E 00	-4.01341E-02	1.06427	3.17931	182.161	1.13267
10.84	-1.06237E 00	-3.35069E-02	1.06289	3.17312	181.807	1.12974
10.86	-1.06055E 00	-2.70520E-02	1.06089	3.16709	181.461	1.12550
10.88	-1.05809E 00	-2.08374E-02	1.05829	3.16128	181.128	1.11998
10.90	-1.05501E 00	-1.49283E-02	1.05511	3.15574	180.811	1.11327
10.92	-1.05135E 00	-9.38609E-03	1.05139	3.15052	180.512	1.10543
10.94	-1.04716E 00	-4.26787E-03	1.04716	3.14567	180.234	1.09655
10.96	-1.04247E 00	3.74204E-04	1.04247	3.14123	179.979	1.08675
10.98	-1.03735E 00	4.49310E-03	1.03736	3.13726	179.752	1.07613
11.00	-1.03186E 00	8.04824E-03	1.03189	3.13379	179.553	1.06480

ka	Re G	Im G	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
11.00	-1.03186E 00	8.04824E-03	1.03189	3.13379	179.553	1.06480
11.02	-1.02605E 00	1.10049E-02	1.02611	3.13087	179.385	1.05289
11.04	-1.01998E 00	1.33351E-02	1.02007	3.12852	179.251	1.04055
11.06	-1.01374E 00	1.50178E-02	1.01385	3.12678	179.151	1.02789
11.08	-1.00737E 00	1.60392E-02	1.00750	3.12567	179.088	1.01506
11.10	-1.00096E 00	1.63927E-02	1.00110	3.12522	179.062	1.00220
11.12	-9.94578E-01	1.60785E-02	0.99471	3.12543	179.074	0.98944
11.14	-9.88284E-01	1.51045E-02	0.98840	3.12631	179.124	0.97693
11.16	-9.82149E-01	1.34859E-02	0.98224	3.12786	179.213	0.96480
11.18	-9.76241E-01	1.12441E-02	0.97631	3.13008	179.340	0.95317
11.20	-9.70620E-01	8.40747E-03	0.97066	3.13293	179.504	0.94217
11.22	-9.65347E-01	5.01078E-03	0.96536	3.13640	179.703	0.93192
11.24	-9.60477E-01	1.09439E-03	0.96048	3.14045	179.935	0.92252
11.26	-9.56061E-01	-3.29544E-03	0.95607	3.14504	180.197	0.91406
11.28	-9.52143E-01	-8.10827E-03	0.95218	3.15011	180.488	0.90664
11.30	-9.48765E-01	-1.32888E-02	0.94886	3.15560	180.802	0.90033
11.32	-9.45959E-01	-1.87780E-02	0.94615	3.16144	181.137	0.89519
11.34	-9.43753E-01	-2.45143E-02	0.94407	3.16756	181.488	0.89127
11.36	-9.42169E-01	-3.04334E-02	0.94266	3.17388	181.850	0.88861
11.38	-9.41219E-01	-3.64693E-02	0.94193	3.18032	182.219	0.88722
11.40	-9.40911E-01	-4.25552E-02	0.94187	3.18679	182.590	0.88712
11.42	-9.41245E-01	-4.86242E-02	0.94250	3.19321	182.957	0.88831
11.44	-9.42215E-01	-5.46098E-02	0.94380	3.19949	183.317	0.89075
11.46	-9.43806E-01	-6.04466E-02	0.94574	3.20555	183.665	0.89442
11.48	-9.45997E-01	-6.60716E-02	0.94830	3.21132	183.995	0.89928
11.50	-9.48763E-01	-7.14238E-02	0.95145	3.21673	184.305	0.90525
11.52	-9.52071E-01	-7.64459E-02	0.95513	3.22172	184.591	0.91228
11.54	-9.55881E-01	-8.10845E-02	0.95931	3.22622	184.849	0.92028
11.56	-9.60149E-01	-8.52905E-02	0.96393	3.23019	185.076	0.92916
11.58	-9.64828E-01	-8.90195E-02	0.96893	3.23360	185.271	0.93882
11.60	-9.69865E-01	-9.22328E-02	0.97424	3.23641	185.432	0.94914
11.62	-9.75202E-01	-9.48976E-02	0.97981	3.23860	185.558	0.96002
11.64	-9.80781E-01	-9.69869E-02	0.98556	3.24016	185.647	0.97134
11.66	-9.86540E-01	-9.84806E-02	0.99144	3.24109	185.701	0.98296
11.68	-9.92416E-01	-9.93641E-02	0.99738	3.24138	185.718	0.99476
11.70	-9.98345E-01	-9.96306E-02	1.00330	3.24106	185.699	1.00662
11.72	-1.00426E 00	-9.92795E-02	1.00916	3.24013	185.646	1.01840
11.74	-1.01010E 00	-9.83172E-02	1.01488	3.23862	185.559	1.02997
11.76	-1.01580E 00	-9.67560E-02	1.02040	3.23656	185.441	1.04122
11.78	-1.02131E 00	-9.46155E-02	1.02568	3.23397	185.293	1.05202
11.80	-1.02655E 00	-9.19207E-02	1.03066	3.23090	185.117	1.06225
11.82	-1.03148E 00	-8.87032E-02	1.03529	3.22738	184.915	1.07182
11.84	-1.03604E 00	-8.49995E-02	1.03952	3.22345	184.690	1.08061
11.86	-1.04020E 00	-8.08512E-02	1.04333	3.21916	184.444	1.08854
11.88	-1.04389E 00	-7.63050E-02	1.04668	3.21456	184.181	1.09553
11.90	-1.04709E 00	-7.14112E-02	1.04953	3.20969	183.902	1.10150
11.92	-1.04977E 00	-6.62234E-02	1.05186	3.20459	183.610	1.10640
11.94	-1.05189E 00	-6.07991E-02	1.05365	3.19933	183.308	1.11018
11.96	-1.05345E 00	-5.51970E-02	1.05489	3.19394	182.999	1.11279
11.98	-1.05441E 00	-4.94778E-02	1.05557	3.18848	182.687	1.11423
12.00	-1.05478E 00	-4.37033E-02	1.05569	3.18300	182.373	1.11448

ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
12.00	-1.05478E 00	-4.37033E-02	1.05569	3.18300	182.373	1.11448
12.02	-1.05456E 00	-3.79355E-02	1.05524	3.17755	182.060	1.11354
12.04	-1.05375E 00	-3.22357E-02	1.05424	3.17217	181.752	1.11143
12.06	-1.05236E 00	-2.66649E-02	1.05270	3.16693	181.451	1.10818
12.08	-1.05041E 00	-2.12818E-02	1.05063	3.16185	181.161	1.10382
12.10	-1.04793E 00	-1.61429E-02	1.04805	3.15700	180.883	1.09842
12.12	-1.04494E 00	-1.13017E-02	1.04500	3.15241	180.620	1.09203
12.14	-1.04148E 00	-6.80835E-03	1.04150	3.14813	180.375	1.08472
12.16	-1.03758E 00	-2.70953E-03	1.03759	3.14420	180.150	1.07659
12.18	-1.03330E 00	9.53857E-04	1.03330	3.14067	179.947	1.06771
12.20	-1.02868E 00	4.14429E-03	1.02869	3.13756	179.769	1.05820
12.22	-1.02377E 00	6.83112E-03	1.02379	3.13492	179.618	1.04816
12.24	-1.01863E 00	8.98794E-03	1.01867	3.13277	179.494	1.03769
12.26	-1.01331E 00	1.05949E-02	1.01337	3.13114	179.401	1.02691
12.28	-1.00788E 00	1.16378E-02	1.00794	3.13005	179.338	1.01595
12.30	-1.00238E 00	1.21092E-02	1.00246	3.12951	179.308	1.00492
12.32	-9.96888E-01	1.20070E-02	0.99696	3.12955	179.310	0.99393
12.34	-9.91455E-01	1.13360E-02	0.99152	3.13016	179.345	0.98311
12.36	-9.86141E-01	1.01075E-02	0.98619	3.13134	179.413	0.97258
12.38	-9.81003E-01	8.33706E-03	0.98104	3.13309	179.513	0.96244
12.40	-9.76095E-01	6.04829E-03	0.97611	3.13540	179.645	0.95280
12.42	-9.71470E-01	3.26831E-03	0.97148	3.13823	179.807	0.94377
12.44	-9.67177E-01	3.10328E-05	0.96718	3.14156	179.998	0.93543
12.46	-9.63259E-01	-3.62628E-03	0.96327	3.14536	180.216	0.92788
12.48	-9.59759E-01	-7.66078E-03	0.95979	3.14957	180.457	0.92120
12.50	-9.56711E-01	-1.20268E-02	0.95679	3.15416	180.720	0.91544
12.52	-9.54146E-01	-1.66744E-02	0.95429	3.15907	181.001	0.91067
12.54	-9.52090E-01	-2.15513E-02	0.95233	3.16422	181.297	0.90694
12.56	-9.50563E-01	-2.66029E-02	0.95094	3.16957	181.603	0.90428
12.58	-9.49578E-01	-3.17730E-02	0.95011	3.17504	181.916	0.90271
12.60	-9.49144E-01	-3.70048E-02	0.94987	3.18056	182.233	0.90224
12.62	-9.49262E-01	-4.22402E-02	0.95020	3.18606	182.548	0.90288
12.64	-9.49929E-01	-4.74220E-02	0.95111	3.19147	182.858	0.90461
12.66	-9.51135E-01	-5.24938E-02	0.95258	3.19673	183.159	0.90741
12.68	-9.52864E-01	-5.74007E-02	0.95459	3.20176	183.447	0.91125
12.70	-9.55095E-01	-6.20895E-02	0.95711	3.20651	183.719	0.91606
12.72	-9.57801E-01	-6.65102E-02	0.96011	3.21092	183.972	0.92181
12.74	-9.60951E-01	-7.06152E-02	0.96354	3.21495	184.203	0.92841
12.76	-9.64508E-01	-7.43612E-02	0.96737	3.21854	184.409	0.93581
12.78	-9.68433E-01	-7.77089E-02	0.97155	3.22166	184.588	0.94390
12.80	-9.72680E-01	-8.06232E-02	0.97602	3.22429	184.738	0.95261
12.82	-9.77203E-01	-8.30739E-02	0.98073	3.22640	184.859	0.96183
12.84	-9.81951E-01	-8.50361E-02	0.98563	3.22798	184.949	0.97146
12.86	-9.86871E-01	-8.64905E-02	0.99065	3.22901	185.009	0.98140
12.88	-9.91911E-01	-8.74231E-02	0.99576	3.22950	185.037	0.99153
12.90	-9.97014E-01	-8.78254E-02	1.00087	3.22945	185.034	1.00175
12.92	-1.00213E 00	-8.76954E-02	1.00596	3.22888	185.001	1.01195
12.94	-1.00719E 00	-8.70361E-02	1.01094	3.22779	184.939	1.02201
12.96	-1.01215E 00	-8.58564E-02	1.01579	3.22622	184.849	1.03182
12.98	-1.01696E 00	-8.41710E-02	1.02044	3.22417	184.731	1.04129
13.00	-1.02156E 00	-8.19999E-02	1.02485	3.22169	184.589	1.05032

ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
13.00	-1.02156E 00	-8.19999E-02	1.02485	3.22169	184.589	1.05032
13.02	-1.02591E 00	-7.93682E-02	1.02898	3.21880	184.424	1.05879
13.04	-1.02996E 00	-7.63059E-02	1.03278	3.21554	184.237	1.06664
13.06	-1.03366E 00	-7.28474E-02	1.03623	3.21195	184.031	1.07376
13.08	-1.03699E 00	-6.90314E-02	1.03928	3.20806	183.809	1.08010
13.10	-1.03989E 00	-6.49000E-02	1.04192	3.20392	183.571	1.08559
13.12	-1.04236E 00	-6.04990E-02	1.04411	3.19957	183.322	1.09017
13.14	-1.04435E 00	-5.58763E-02	1.04584	3.19505	183.063	1.09379
13.16	-1.04586E 00	-5.10825E-02	1.04710	3.19040	182.796	1.09642
13.18	-1.04686E 00	-4.61692E-02	1.04787	3.18567	182.525	1.09804
13.20	-1.04735E 00	-4.11897E-02	1.04816	3.18090	182.252	1.09864
13.22	-1.04733E 00	-3.61976E-02	1.04795	3.17614	181.979	1.09820
13.24	-1.04679E 00	-3.12460E-02	1.04726	3.17143	181.710	1.09675
13.26	-1.04575E 00	-2.63879E-02	1.04609	3.16682	181.445	1.09430
13.28	-1.04423E 00	-2.16748E-02	1.04445	3.16235	181.189	1.09088
13.30	-1.04223E 00	-1.71560E-02	1.04237	3.15805	180.943	1.08653
13.32	-1.03978E 00	-1.28787E-02	1.03986	3.15398	180.710	1.08131
13.34	-1.03692E 00	-8.88831E-03	1.03695	3.15016	180.491	1.07527
13.36	-1.03367E 00	-5.22527E-03	1.03368	3.14665	180.290	1.06849
13.38	-1.03007E 00	-1.92722E-03	1.03007	3.14346	180.107	1.06104
13.40	-1.02616E 00	9.72309E-04	1.02616	3.14065	179.946	1.05300
13.42	-1.02199E 00	3.44469E-03	1.02199	3.13822	179.807	1.04447
13.44	-1.01759E 00	5.46557E-03	1.01761	3.13622	179.692	1.03553
13.46	-1.01303E 00	7.01564E-03	1.01306	3.13467	179.603	1.02628
13.48	-1.00835E 00	8.08142E-03	1.00838	3.13358	179.541	1.01684
13.50	-1.00360E 00	8.65367E-03	1.00364	3.13297	179.506	1.00729
13.52	-9.98835E-01	8.72924E-03	0.99887	3.13285	179.499	0.99775
13.54	-9.94103E-01	8.31038E-03	0.99414	3.13323	179.521	0.98831
13.56	-9.89456E-01	7.40429E-03	0.98948	3.13411	179.571	0.97908
13.58	-9.84945E-01	6.02367E-03	0.98496	3.13548	179.650	0.97015
13.60	-9.80618E-01	4.18607E-03	0.98063	3.13732	179.755	0.96163
13.62	-9.76519E-01	1.91433E-03	0.97652	3.13963	179.888	0.95359
13.64	-9.72694E-01	-7.64580E-04	0.97269	3.14238	180.045	0.94613
13.66	-9.69181E-01	-3.81931E-03	0.96919	3.14553	180.226	0.93933
13.68	-9.66017E-01	-7.21446E-03	0.96604	3.14906	180.428	0.93324
13.70	-9.63236E-01	-1.09112E-02	0.96330	3.15292	180.649	0.92794
13.72	-9.60864E-01	-1.48676E-02	0.96098	3.15706	180.886	0.92348
13.74	-9.58926E-01	-1.90394E-02	0.95912	3.16144	181.137	0.91990
13.76	-9.57442E-01	-2.33795E-02	0.95773	3.16601	181.399	0.91724
13.78	-9.56424E-01	-2.78399E-02	0.95683	3.17069	181.667	0.91552
13.80	-9.55882E-01	-3.23714E-02	0.95643	3.17545	181.940	0.91476
13.82	-9.55819E-01	-3.69242E-02	0.95653	3.18020	182.212	0.91495
13.84	-9.56234E-01	-4.14483E-02	0.95713	3.18491	182.482	0.91610
13.86	-9.57120E-01	-4.58942E-02	0.95822	3.18951	182.745	0.91818
13.88	-9.58466E-01	-5.02141E-02	0.95978	3.19393	182.999	0.92118
13.90	-9.60254E-01	-5.43611E-02	0.96179	3.19814	183.240	0.92504
13.92	-9.62464E-01	-5.82907E-02	0.96423	3.20208	183.466	0.92974
13.94	-9.65070E-01	-6.19608E-02	0.96706	3.20571	183.674	0.93520
13.96	-9.68042E-01	-6.53326E-02	0.97024	3.20898	183.861	0.94137
13.98	-9.71345E-01	-6.83703E-02	0.97375	3.21186	184.026	0.94819
14.00	-9.74944E-01	-7.10420E-02	0.97753	3.21433	184.168	0.95556

ka	Re G	Im G	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
14.00	-9.74944E-01	-7.10420E-02	0.97753	3.21433	184.168	0.95556
14.02	-9.78797E-01	-7.33201E-02	0.98154	3.21636	184.284	0.96342
14.04	-9.82863E-01	-7.51814E-02	0.98573	3.21794	184.374	0.97167
14.06	-9.87095E-01	-7.66065E-02	0.99006	3.21905	184.438	0.98023
14.08	-9.91449E-01	-7.75820E-02	0.99448	3.21968	184.474	0.98899
14.10	-9.95875E-01	-7.80984E-02	0.99893	3.21985	184.484	0.99787
14.12	-1.00033E 00	-7.81521E-02	1.00337	3.21956	184.467	1.00676
14.14	-1.00475E 00	-7.77436E-02	1.00776	3.21881	184.424	1.01557
14.16	-1.00911E 00	-7.68789E-02	1.01204	3.21763	184.357	1.02422
14.18	-1.01335E 00	-7.55691E-02	1.01616	3.21603	184.265	1.03259
14.20	-1.01743E 00	-7.38296E-02	1.02010	3.21403	184.150	1.04061
14.22	-1.02130E 00	-7.16804E-02	1.02381	3.21166	184.015	1.04819
14.24	-1.02492E 00	-6.91461E-02	1.02725	3.20896	183.860	1.05525
14.26	-1.02826E 00	-6.62554E-02	1.03039	3.20594	183.687	1.06171
14.28	-1.03128E 00	-6.30403E-02	1.03320	3.20264	183.498	1.06751
14.30	-1.03395E 00	-5.95366E-02	1.03566	3.19911	183.296	1.07259
14.32	-1.03623E 00	-5.57827E-02	1.03774	3.19537	183.081	1.07689
14.34	-1.03812E 00	-5.18200E-02	1.03941	3.19147	182.858	1.08038
14.36	-1.03959E 00	-4.76915E-02	1.04068	3.18744	182.627	1.08302
14.38	-1.04062E 00	-4.34419E-02	1.04153	3.18331	182.390	1.08478
14.40	-1.04121E 00	-3.91173E-02	1.04195	3.17914	182.152	1.08566
14.42	-1.04136E 00	-3.47641E-02	1.04194	3.17496	181.912	1.08563
14.44	-1.04105E 00	-3.04291E-02	1.04150	3.17081	181.674	1.08471
14.46	-1.04030E 00	-2.61583E-02	1.04063	3.16673	181.440	1.08292
14.48	-1.03912E 00	-2.19972E-02	1.03936	3.16276	181.213	1.08026
14.50	-1.03753E 00	-1.79896E-02	1.03768	3.15893	180.993	1.07679
14.52	-1.03553E 00	-1.41776E-02	1.03563	3.15528	180.784	1.07253
14.54	-1.03316E 00	-1.06011E-02	1.03322	3.15185	180.588	1.06754
14.56	-1.03045E 00	-7.29724E-03	1.03047	3.14867	180.406	1.06187
14.58	-1.02741E 00	-4.29980E-03	1.02742	3.14578	180.240	1.05559
14.60	-1.02409E 00	-1.63950E-03	1.02410	3.14319	180.092	1.04877
14.62	-1.02053E 00	6.57057E-04	1.02053	3.14095	179.963	1.04148
14.64	-1.01676E 00	2.56702E-03	1.01676	3.13907	179.855	1.03381
14.66	-1.01283E 00	4.07243E-03	1.01284	3.13757	179.770	1.02584
14.68	-1.00877E 00	5.15874E-03	1.00879	3.13648	179.707	1.01765
14.70	-1.00464E 00	5.81686E-03	1.00466	3.13580	179.668	1.00934
14.72	-1.00048E 00	6.04193E-03	1.00049	3.13555	179.654	1.00099
14.74	-9.96326E-01	5.83407E-03	0.99634	3.13574	179.665	0.99270
14.76	-9.92232E-01	5.19767E-03	0.99225	3.13635	179.700	0.98455
14.78	-9.88241E-01	4.14239E-03	0.98825	3.13740	179.760	0.97664
14.80	-9.84393E-01	2.68147E-03	0.98440	3.13887	179.844	0.96904
14.82	-9.80731E-01	8.33018E-04	0.98073	3.14074	179.951	0.96183
14.84	-9.77293E-01	-1.38047E-03	0.97729	3.14301	180.081	0.95510
14.86	-9.74115E-01	-3.93325E-03	0.97412	3.14563	180.231	0.94892
14.88	-9.71230E-01	-6.79612E-03	0.97125	3.14859	180.401	0.94333
14.90	-9.68668E-01	-9.93599E-03	0.96872	3.15185	180.588	0.93842
14.92	-9.66456E-01	-1.33172E-02	0.96655	3.15537	180.789	0.93421
14.94	-9.64615E-01	-1.69022E-02	0.96476	3.15911	181.004	0.93077
14.96	-9.63165E-01	-2.06503E-02	0.96339	3.16303	181.228	0.92811
14.98	-9.62118E-01	-2.45204E-02	0.96243	3.16707	181.460	0.92627
15.00	-9.61485E-01	-2.84698E-02	0.96191	3.17119	181.696	0.92526

ka	Re G	Im G	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
15.00	-9.61485E-01	-2.84698E-02	0.96191	3.17119	181.696	0.92526
15.02	-9.61271E-01	-3.24545E-02	0.96182	3.17534	181.934	0.92509
15.04	-9.61475E-01	-3.64311E-02	0.96217	3.17947	182.170	0.92576
15.06	-9.62095E-01	-4.03568E-02	0.96294	3.18351	182.402	0.92726
15.08	-9.63121E-01	-4.41880E-02	0.96413	3.18744	182.627	0.92955
15.10	-9.64541E-01	-4.78841E-02	0.96573	3.19120	182.842	0.93263
15.12	-9.66339E-01	-5.14049E-02	0.96770	3.19474	183.045	0.93645
15.14	-9.68492E-01	-5.47130E-02	0.97004	3.19803	183.233	0.94097
15.16	-9.70976E-01	-5.77727E-02	0.97269	3.20102	183.405	0.94613
15.18	-9.73762E-01	-6.05519E-02	0.97564	3.20370	183.558	0.95188
15.20	-9.76821E-01	-6.30213E-02	0.97885	3.20602	183.691	0.95815
15.22	-9.80117E-01	-6.51547E-02	0.98228	3.20797	183.803	0.96487
15.24	-9.83614E-01	-6.69305E-02	0.98589	3.20953	183.893	0.97198
15.26	-9.87272E-01	-6.83305E-02	0.98963	3.21069	183.959	0.97938
15.28	-9.91053E-01	-6.93409E-02	0.99348	3.21145	184.002	0.98700
15.30	-9.94915E-01	-6.99512E-02	0.99737	3.21179	184.022	0.99475
15.32	-9.98816E-01	-7.01568E-02	1.00128	3.21172	184.018	1.00255
15.34	-1.00271E 00	-6.99564E-02	1.00515	3.21125	183.991	1.01033
15.36	-1.00656E 00	-6.93536E-02	1.00895	3.21039	183.942	1.01798
15.38	-1.01033E 00	-6.83559E-02	1.01264	3.20915	183.871	1.02544
15.40	-1.01397E 00	-6.69756E-02	1.01617	3.20755	183.779	1.03261
15.42	-1.01744E 00	-6.52282E-02	1.01953	3.20562	183.668	1.03943
15.44	-1.02071E 00	-6.31343E-02	1.02266	3.20337	183.539	1.04582
15.46	-1.02374E 00	-6.07173E-02	1.02554	3.20083	183.394	1.05172
15.48	-1.02650E 00	-5.80039E-02	1.02814	3.19804	183.234	1.05706
15.50	-1.02896E 00	-5.50244E-02	1.03043	3.19502	183.061	1.06180
15.52	-1.03111E 00	-5.18116E-02	1.03241	3.19180	182.877	1.06587
15.54	-1.03290E 00	-4.84006E-02	1.03404	3.18842	182.683	1.06923
15.56	-1.03434E 00	-4.48288E-02	1.03531	3.18491	182.482	1.07187
15.58	-1.03540E 00	-4.11349E-02	1.03621	3.18130	182.275	1.07374
15.60	-1.03607E 00	-3.73586E-02	1.03674	3.17764	182.065	1.07484
15.62	-1.03635E 00	-3.35411E-02	1.03689	3.17395	181.854	1.07515
15.64	-1.03624E 00	-2.97226E-02	1.03666	3.17027	181.643	1.07467
15.66	-1.03573E 00	-2.59443E-02	1.03606	3.16664	181.435	1.07341
15.68	-1.03484E 00	-2.22461E-02	1.03508	3.16309	181.232	1.07140
15.70	-1.03359E 00	-1.86676E-02	1.03375	3.15965	181.035	1.06865
15.72	-1.03197E 00	-1.52462E-02	1.03208	3.15637	180.846	1.06519
15.74	-1.03001E 00	-1.20174E-02	1.03008	3.15326	180.668	1.06107
15.76	-1.02774E 00	-9.01522E-03	1.02778	3.15036	180.503	1.05634
15.78	-1.02518E 00	-6.27038E-03	1.02520	3.14771	180.350	1.05104
15.80	-1.02236E 00	-3.81133E-03	1.02237	3.14532	180.214	1.04524
15.82	-1.01931E 00	-1.66274E-03	1.01931	3.14322	180.093	1.03900
15.84	-1.01606E 00	1.54180E-04	1.01606	3.14144	179.991	1.03238
15.86	-1.01266E 00	1.62132E-03	1.01266	3.13999	179.908	1.02548
15.88	-1.00913E 00	2.72473E-03	1.00913	3.13889	179.845	1.01835
15.90	-1.00551E 00	3.45459E-03	1.00552	3.13816	179.803	1.01107
15.92	-1.00186E 00	3.80480E-03	1.00186	3.13779	179.782	1.00373
15.94	-9.98194E-01	3.77396E-03	0.99820	3.13781	179.783	0.99641
15.96	-9.94566E-01	3.36404E-03	0.99457	3.13821	179.806	0.98917
15.98	-9.91012E-01	2.58151E-03	0.99102	3.13899	179.851	0.98211
16.00	-9.87569E-01	1.43682E-03	0.98757	3.14014	179.917	0.97530

ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
16.00	-9.87569E-01	1.43682E-03	0.98757	3.14014	179.917	0.97530
16.02	-9.84275E-01	-5.58880E-05	0.98427	3.14165	180.003	0.96880
16.04	-9.81164E-01	-1.87839E-03	0.98117	3.14351	180.110	0.96269
16.06	-9.78268E-01	-4.00941E-03	0.97828	3.14569	180.235	0.95702
16.08	-9.75619E-01	-6.42441E-03	0.97564	3.14818	180.377	0.95187
16.10	-9.73244E-01	-9.09569E-03	0.97329	3.15094	180.535	0.94729
16.12	-9.71167E-01	-1.19929E-02	0.97124	3.15394	180.708	0.94331
16.14	-9.69410E-01	-1.50837E-02	0.96953	3.15715	180.891	0.93998
16.16	-9.67990E-01	-1.83332E-02	0.96816	3.16053	181.085	0.93734
16.18	-9.66921E-01	-2.17057E-02	0.96716	3.16404	181.286	0.93541
16.20	-9.66213E-01	-2.51636E-02	0.96654	3.16763	181.492	0.93420
16.22	-9.65873E-01	-2.86690E-02	0.96630	3.17127	181.700	0.93373
16.24	-9.65902E-01	-3.21834E-02	0.96644	3.17490	181.908	0.93400
16.26	-9.66299E-01	-3.56686E-02	0.96696	3.17849	182.114	0.93501
16.28	-9.67058E-01	-3.90864E-02	0.96785	3.18199	182.315	0.93673
16.30	-9.68170E-01	-4.24004E-02	0.96910	3.18536	182.508	0.93915
16.32	-9.69620E-01	-4.55742E-02	0.97069	3.18856	182.691	0.94224
16.34	-9.71392E-01	-4.85741E-02	0.97261	3.19156	182.863	0.94596
16.36	-9.73466E-01	-5.13680E-02	0.97482	3.19431	183.021	0.95027
16.38	-9.75818E-01	-5.39262E-02	0.97731	3.19680	183.163	0.95513
16.40	-9.78421E-01	-5.62217E-02	0.98003	3.19899	183.289	0.96047
16.42	-9.81246E-01	-5.82302E-02	0.98297	3.20087	183.396	0.96624
16.44	-9.84263E-01	-5.99311E-02	0.98609	3.20241	183.484	0.97237
16.46	-9.87437E-01	-6.13066E-02	0.98934	3.20360	183.553	0.97879
16.48	-9.90734E-01	-6.23431E-02	0.99269	3.20444	183.601	0.98544
16.50	-9.94118E-01	-6.30302E-02	0.99611	3.20491	183.628	0.99224
16.52	-9.97552E-01	-6.33614E-02	0.99956	3.20502	183.634	0.99912
16.54	-1.00100E 00	-6.33342E-02	1.00300	3.20478	183.620	1.00601
16.56	-1.00442E 00	-6.29502E-02	1.00639	3.20418	183.586	1.01282
16.58	-1.00778E 00	-6.22145E-02	1.00970	3.20325	183.533	1.01949
16.60	-1.01104E 00	-6.11359E-02	1.01289	3.20199	183.460	1.02595
16.62	-1.01417E 00	-5.97269E-02	1.01593	3.20042	183.370	1.03212
16.64	-1.01714E 00	-5.80039E-02	1.01879	3.19856	183.264	1.03794
16.66	-1.01991E 00	-5.59863E-02	1.02145	3.19643	183.142	1.04335
16.68	-1.02245E 00	-5.36967E-02	1.02386	3.19406	183.006	1.04829
16.70	-1.02474E 00	-5.11603E-02	1.02602	3.19148	182.858	1.05272
16.72	-1.02676E 00	-4.84053E-02	1.02790	3.18870	182.699	1.05658
16.74	-1.02848E 00	-4.54616E-02	1.02948	3.18577	182.531	1.05984
16.76	-1.02988E 00	-4.23614E-02	1.03075	3.18270	182.355	1.06245
16.78	-1.03096E 00	-3.91384E-02	1.03170	3.17954	182.174	1.06441
16.80	-1.03170E 00	-3.58275E-02	1.03232	3.17631	181.989	1.06569
16.82	-1.03209E 00	-3.24643E-02	1.03260	3.17304	181.802	1.06627
16.84	-1.03214E 00	-2.90850E-02	1.03255	3.16976	181.614	1.06616
16.86	-1.03184E 00	-2.57255E-02	1.03216	3.16652	181.428	1.06536
16.88	-1.03120E 00	-2.24216E-02	1.03144	3.16333	181.246	1.06388
16.90	-1.03022E 00	-1.92082E-02	1.03040	3.16024	181.068	1.06173
16.92	-1.02893E 00	-1.61196E-02	1.02905	3.15726	180.898	1.05895
16.94	-1.02732E 00	-1.31879E-02	1.02741	3.15443	180.735	1.05556
16.96	-1.02543E 00	-1.04435E-02	1.02548	3.15178	180.584	1.05161
16.98	-1.02327E 00	-7.91542E-03	1.02330	3.14933	180.443	1.04714
17.00	-1.02087E 00	-5.62928E-03	1.02088	3.14711	180.316	1.04221

ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
17.00	-1.02087E 00	-5.62928E-03	1.02088	3.14711	180.316	1.04221
17.02	-1.01825E 00	-3.60841E-03	1.01826	3.14514	180.203	1.03685
17.04	-1.01545E 00	-1.87339E-03	1.01545	3.14344	180.106	1.03114
17.06	-1.01249E 00	-4.41129E-04	1.01249	3.14203	180.025	1.02514
17.08	-1.00941E 00	6.74142E-04	1.00941	3.14092	179.962	1.01890
17.10	-1.00624E 00	1.46239E-03	1.00624	3.14014	179.917	1.01251
17.12	-1.00301E 00	1.91646E-03	1.00301	3.13968	179.891	1.00603
17.14	-9.99764E-01	2.03352E-03	0.99977	3.13956	179.883	0.99953
17.16	-9.96534E-01	1.81356E-03	0.99654	3.13977	179.896	0.99308
17.18	-9.93353E-01	1.26083E-03	0.99335	3.14032	179.927	0.98675
17.20	-9.90257E-01	3.83113E-04	0.99026	3.14121	179.978	0.98061
17.22	-9.87277E-01	-8.08850E-04	0.98728	3.14241	180.047	0.97472
17.24	-9.84447E-01	-2.30047E-03	0.98445	3.14393	180.134	0.96914
17.26	-9.81795E-01	-4.07407E-03	0.98180	3.14574	180.238	0.96394
17.28	-9.79350E-01	-6.10902E-03	0.97937	3.14783	180.357	0.95916
17.30	-9.77137E-01	-8.38212E-03	0.97717	3.15017	180.491	0.95487
17.32	-9.75179E-01	-1.08676E-02	0.97524	3.15274	180.638	0.95109
17.34	-9.73496E-01	-1.35375E-02	0.97359	3.15550	180.797	0.94788
17.36	-9.72106E-01	-1.63620E-02	0.97224	3.15842	180.964	0.94526
17.38	-9.71021E-01	-1.93093E-02	0.97121	3.16148	181.139	0.94326
17.40	-9.70254E-01	-2.23475E-02	0.97051	3.16462	181.319	0.94189
17.42	-9.69809E-01	-2.54424E-02	0.97014	3.16782	181.503	0.94118
17.44	-9.69693E-01	-2.85608E-02	0.97011	3.17104	181.687	0.94112
17.46	-9.69903E-01	-3.16682E-02	0.97042	3.17423	181.870	0.94171
17.48	-9.70437E-01	-3.47308E-02	0.97106	3.17737	182.050	0.94295
17.50	-9.71288E-01	-3.77155E-02	0.97202	3.18040	182.224	0.94482
17.52	-9.72444E-01	-4.05901E-02	0.97329	3.18331	182.390	0.94730
17.54	-9.73894E-01	-4.33237E-02	0.97486	3.18605	182.547	0.95035
17.56	-9.75619E-01	-4.58871E-02	0.97670	3.18859	182.693	0.95394
17.58	-9.77601E-01	-4.82528E-02	0.97879	3.19091	182.826	0.95803
17.60	-9.79816E-01	-5.03960E-02	0.98111	3.19298	182.944	0.96258
17.62	-9.82240E-01	-5.22937E-02	0.98363	3.19478	183.048	0.96753
17.64	-9.84847E-01	-5.39265E-02	0.98632	3.19629	183.134	0.97283
17.66	-9.87607E-01	-5.52773E-02	0.98915	3.19751	183.204	0.97842
17.68	-9.90489E-01	-5.63322E-02	0.99209	3.19840	183.255	0.98424
17.70	-9.93464E-01	-5.70808E-02	0.99510	3.19899	183.288	0.99023
17.72	-9.96497E-01	-5.75156E-02	0.99816	3.19925	183.303	0.99631
17.74	-9.99557E-01	-5.76333E-02	1.00122	3.19919	183.300	1.00244
17.76	-1.00261E 00	-5.74330E-02	1.00425	3.19881	183.279	1.00852
17.78	-1.00562E 00	-5.69181E-02	1.00723	3.19813	183.239	1.01452
17.80	-1.00856E 00	-5.60945E-02	1.01012	3.19715	183.183	1.02035
17.82	-1.01140E 00	-5.49724E-02	1.01289	3.19589	183.111	1.02595
17.84	-1.01410E 00	-5.35644E-02	1.01552	3.19436	183.024	1.03128
17.86	-1.01665E 00	-5.18868E-02	1.01797	3.19259	182.922	1.03626
17.88	-1.01900E 00	-4.99581E-02	1.02022	3.19058	182.807	1.04085
17.90	-1.02114E 00	-4.77997E-02	1.02226	3.18837	182.680	1.04501
17.92	-1.02304E 00	-4.54354E-02	1.02405	3.18598	182.543	1.04868
17.94	-1.02469E 00	-4.28911E-02	1.02559	3.18343	182.397	1.05183
17.96	-1.02606E 00	-4.01946E-02	1.02685	3.18075	182.243	1.05442
17.98	-1.02715E 00	-3.73754E-02	1.02783	3.17796	182.084	1.05644
18.00	-1.02795E 00	-3.44632E-02	1.02852	3.17511	181.920	1.05786

ka	Re $\underline{G}$	Im $\underline{G}$	G	Φ_{RAD}	Φ_{DEG}	$\sigma/\pi a^2$
18.00	-1.02795E 00	-3.44632E-02	1.02852	3.17511	181.920	1.05786
18.02	-1.02844E 00	-3.14903E-02	1.02892	3.17220	181.754	1.05867
18.04	-1.02862E 00	-2.84883E-02	1.02901	3.16928	181.586	1.05886
18.06	-1.02849E 00	-2.54894E-02	1.02880	3.16637	181.420	1.05844
18.08	-1.02805E 00	-2.25252E-02	1.02830	3.16350	181.255	1.05740
18.10	-1.02732E 00	-1.96276E-02	1.02750	3.16070	181.095	1.05577
18.12	-1.02629E 00	-1.68268E-02	1.02643	3.15799	180.939	1.05356
18.14	-1.02498E 00	-1.41527E-02	1.02508	3.15540	180.791	1.05079
18.16	-1.02341E 00	-1.16331E-02	1.02348	3.15296	180.651	1.04751
18.18	-1.02160E 00	-9.29429E-03	1.02164	3.15069	180.521	1.04375
18.20	-1.01956E 00	-7.16035E-03	1.01958	3.14862	180.402	1.03954
18.22	-1.01731E 00	-5.25323E-03	1.01732	3.14676	180.296	1.03495
18.24	-1.01489E 00	-3.59225E-03	1.01489	3.14513	180.203	1.03001
18.26	-1.01231E 00	-2.19395E-03	1.01231	3.14376	180.124	1.02478
18.28	-1.00961E 00	-1.07246E-03	1.00961	3.14265	180.061	1.01932
18.30	-1.00682E 00	-2.38102E-04	1.00682	3.14183	180.014	1.01369
18.32	-1.00397E 00	3.01259E-04	1.00397	3.14129	179.983	1.00795
18.34	-1.00108E 00	5.41486E-04	1.00108	3.14105	179.969	1.00217
18.36	-9.98195E-01	4.81172E-04	0.99820	3.14111	179.972	0.99639
18.38	-9.95339E-01	1.22617E-04	0.99534	3.14147	179.993	0.99070
18.40	-9.92543E-01	-5.28958E-04	0.99254	3.14213	180.031	0.98514
18.42	-9.89838E-01	-1.46501E-03	0.98984	3.14307	180.085	0.97978
18.44	-9.87252E-01	-2.67425E-03	0.98726	3.14430	180.155	0.97467
18.46	-9.84814E-01	-4.14231E-03	0.98482	3.14580	180.241	0.96988
18.48	-9.82548E-01	-5.85201E-03	0.98257	3.14755	180.341	0.96544
18.50	-9.80479E-01	-7.78371E-03	0.98051	3.14953	180.455	0.96140
18.52	-9.78628E-01	-9.91544E-03	0.97868	3.15172	180.580	0.95781
18.54	-9.77014E-01	-1.22233E-02	0.97709	3.15410	180.717	0.95471
18.56	-9.75653E-01	-1.46812E-02	0.97576	3.15664	180.862	0.95212
18.58	-9.74560E-01	-1.72622E-02	0.97471	3.15930	181.015	0.95007
18.60	-9.73745E-01	-1.99374E-02	0.97395	3.16206	181.173	0.94858
18.62	-9.73216E-01	-2.26774E-02	0.97348	3.16489	181.335	0.94766
18.64	-9.72977E-01	-2.54521E-02	0.97331	3.16775	181.498	0.94733
18.66	-9.73031E-01	-2.82315E-02	0.97344	3.17060	181.662	0.94759
18.68	-9.73374E-01	-3.09851E-02	0.97387	3.17341	181.823	0.94842
18.70	-9.74004E-01	-3.36829E-02	0.97459	3.17616	181.981	0.94982
18.72	-9.74910E-01	-3.62962E-02	0.97559	3.17881	182.132	0.95177
18.74	-9.76084E-01	-3.87962E-02	0.97685	3.18132	182.276	0.95425
18.76	-9.77511E-01	-4.11567E-02	0.97838	3.18367	182.411	0.95722
18.78	-9.79175E-01	-4.33523E-02	0.98013	3.18584	182.535	0.96066
18.80	-9.81057E-01	-4.53595E-02	0.98211	3.18780	182.647	0.96453
18.82	-9.83136E-01	-4.71571E-02	0.98427	3.18952	182.746	0.96878
18.84	-9.85390E-01	-4.87266E-02	0.98659	3.19100	182.831	0.97337
18.86	-9.87792E-01	-5.00513E-02	0.98906	3.19222	182.901	0.97824
18.88	-9.90317E-01	-5.11174E-02	0.99164	3.19316	182.955	0.98334
18.90	-9.92937E-01	-5.19145E-02	0.99429	3.19383	182.993	0.98862
18.92	-9.95624E-01	-5.24346E-02	0.99700	3.19421	183.015	0.99402
18.94	-9.98348E-01	-5.26724E-02	0.99974	3.19430	183.020	0.99947
18.96	-1.00108E 00	-5.26266E-02	1.00246	3.19411	183.009	1.00493
18.98	-1.00379E 00	-5.22981E-02	1.00515	3.19365	182.982	1.01033
19.00	-1.00645E 00	-5.16914E-02	1.00778	3.19291	182.940	1.01561

ka	Re G	Im G	G	ϕ RAD	ϕ DEG	$\sigma/\pi a^2$
19.00	-1.00645E 00	-5.16914E-02	1.00778	3.19291	182.940	1.01561
19.02	-1.00903E 00	-5.08134E-02	1.01031	3.19191	182.883	1.02072
19.04	-1.01150E 00	-4.96748E-02	1.01272	3.19066	182.812	1.02561
19.06	-1.01384E 00	-4.82880E-02	1.01499	3.18919	182.727	1.03021
19.08	-1.01603E 00	-4.66689E-02	1.01710	3.18749	182.630	1.03449
19.10	-1.01803E 00	-4.48352E-02	1.01902	3.18561	182.522	1.03840
19.12	-1.01983E 00	-4.28072E-02	1.02073	3.18354	182.404	1.04189
19.14	-1.02141E 00	-4.06072E-02	1.02222	3.18133	182.277	1.04493
19.16	-1.02276E 00	-3.82593E-02	1.02347	3.17898	182.142	1.04750
19.18	-1.02385E 00	-3.57889E-02	1.02448	3.17653	182.002	1.04956
19.20	-1.02469E 00	-3.32227E-02	1.02523	3.17400	181.857	1.05109
19.22	-1.02525E 00	-3.05886E-02	1.02571	3.17142	181.709	1.05208
19.24	-1.02555E 00	-2.79146E-02	1.02593	3.16881	181.559	1.05252
19.26	-1.02556E 00	-2.52295E-02	1.02587	3.16619	181.409	1.05241
19.28	-1.02530E 00	-2.25620E-02	1.02555	3.16359	181.261	1.05175
19.30	-1.02477E 00	-1.99405E-02	1.02496	3.16105	181.115	1.05055
19.32	-1.02398E 00	-1.73926E-02	1.02412	3.15858	180.973	1.04883
19.34	-1.02292E 00	-1.49453E-02	1.02303	3.15620	180.837	1.04660
19.36	-1.02163E 00	-1.26243E-02	1.02171	3.15395	180.708	1.04389
19.38	-1.02011E 00	-1.04537E-02	1.02016	3.15184	180.587	1.04073
19.40	-1.01837E 00	-8.45600E-03	1.01841	3.14990	180.476	1.03716
19.42	-1.01645E 00	-6.65217E-03	1.01647	3.14814	180.375	1.03321
19.44	-1.01436E 00	-5.06018E-03	1.01437	3.14658	180.286	1.02894
19.46	-1.01211E 00	-3.69636E-03	1.01212	3.14524	180.209	1.02439
19.48	-1.00975E 00	-2.57425E-03	1.00975	3.14414	180.146	1.01960
19.50	-1.00729E 00	-1.70479E-03	1.00729	3.14329	180.097	1.01463
19.52	-1.00476E 00	-1.09614E-03	1.00476	3.14268	180.063	1.00954
19.54	-1.00219E 00	-7.53445E-04	1.00219	3.14234	180.043	1.00438
19.56	-9.99600E-01	-6.79616E-04	0.99960	3.14227	180.039	0.99920
19.58	-9.97027E-01	-8.73680E-04	0.99703	3.14247	180.050	0.99406
19.60	-9.94495E-01	-1.33254E-03	0.99450	3.14293	180.077	0.98902
19.62	-9.92032E-01	-2.04995E-03	0.99203	3.14366	180.118	0.98413
19.64	-9.89663E-01	-3.01701E-03	0.98967	3.14464	180.175	0.97944
19.66	-9.87414E-01	-4.22228E-03	0.98742	3.14587	180.245	0.97501
19.68	-9.85309E-01	-5.65147E-03	0.98533	3.14733	180.329	0.97087
19.70	-9.83369E-01	-7.28813E-03	0.98340	3.14900	180.425	0.96707
19.72	-9.81616E-01	-9.11364E-03	0.98166	3.15088	180.532	0.96365
19.74	-9.80066E-01	-1.11076E-02	0.98013	3.15293	180.649	0.96065
19.76	-9.78737E-01	-1.32474E-02	0.97883	3.15513	180.775	0.95810
19.78	-9.77641E-01	-1.55092E-02	0.97776	3.15746	180.909	0.95602
19.80	-9.76790E-01	-1.78683E-02	0.97695	3.15988	181.048	0.95444
19.82	-9.76192E-01	-2.02983E-02	0.97640	3.16238	181.191	0.95336
19.84	-9.75851E-01	-2.27727E-02	0.97612	3.16492	181.337	0.95280
19.86	-9.75773E-01	-2.52643E-02	0.97610	3.16748	181.483	0.95277
19.88	-9.75955E-01	-2.77464E-02	0.97635	3.17002	181.628	0.95326
19.90	-9.76396E-01	-3.01916E-02	0.97686	3.17250	181.771	0.95426
19.92	-9.77089E-01	-3.25734E-02	0.97763	3.17492	181.909	0.95576
19.94	-9.78026E-01	-3.48665E-02	0.97865	3.17723	182.042	0.95775
19.96	-9.79196E-01	-3.70462E-02	0.97990	3.17941	182.167	0.96020
19.98	-9.80586E-01	-3.90887E-02	0.98137	3.18143	182.283	0.96308
20.00	-9.82180E-01	-4.09730E-02	0.98303	3.18328	182.389	0.96636

ka	$Re\,\underline{G}$	$Im\,\underline{G}$	G	Φ_{RAD}	Φ_{DEG}	$\sigma/\pi a^2$
20.00	-9.82180E-01	-4.09730E-02	0.98303	3.18328	182.389	0.96636
20.02	-9.83961E-01	-4.26785E-02	0.98489	3.18494	182.484	0.97000
20.04	-9.85908E-01	-4.41876E-02	0.98690	3.18638	182.566	0.97397
20.06	-9.87999E-01	-4.54841E-02	0.98905	3.18760	182.636	0.97821
20.08	-9.90213E-01	-4.65549E-02	0.99131	3.18857	182.692	0.98269
20.10	-9.92524E-01	-4.73887E-02	0.99365	3.18930	182.734	0.98735
20.12	-9.94907E-01	-4.79773E-02	0.99606	3.18978	182.761	0.99214
20.14	-9.97337E-01	-4.83151E-02	0.99851	3.19000	182.773	0.99702
20.16	-9.99787E-01	-4.83988E-02	1.00096	3.18996	182.771	1.00192
20.18	-1.00223E 00	-4.82281E-02	1.00339	3.18968	182.755	1.00679
20.20	-1.00464E 00	-4.78057E-02	1.00578	3.18914	182.724	1.01159
20.22	-1.00699E 00	-4.71366E-02	1.00810	3.18837	182.680	1.01626
20.24	-1.00926E 00	-4.62290E-02	1.01032	3.18737	182.623	1.02075
20.26	-1.01143E 00	-4.50925E-02	1.01243	3.18615	182.553	1.02501
20.28	-1.01346E 00	-4.37405E-02	1.01440	3.18473	182.471	1.02901
20.30	-1.01534E 00	-4.21877E-02	1.01621	3.18312	182.379	1.03269
20.32	-1.01704E 00	-4.04513E-02	1.01785	3.18135	182.278	1.03601
20.34	-1.01856E 00	-3.85507E-02	1.01929	3.17942	182.168	1.03895
20.36	-1.01988E 00	-3.65063E-02	1.02053	3.17737	182.050	1.04148
20.38	-1.02097E 00	-3.43404E-02	1.02155	3.17522	181.926	1.04356
20.40	-1.02184E 00	-3.20764E-02	1.02234	3.17297	181.798	1.04518
20.42	-1.02246E 00	-2.97389E-02	1.02290	3.17067	181.666	1.04632
20.44	-1.02285E 00	-2.73531E-02	1.02321	3.16833	181.532	1.04696
20.46	-1.02298E 00	-2.49445E-02	1.02329	3.16597	181.397	1.04712
20.48	-1.02287E 00	-2.25386E-02	1.02312	3.16362	181.262	1.04678
20.50	-1.02252E 00	-2.01612E-02	1.02271	3.16131	181.130	1.04594
20.52	-1.02192E 00	-1.78379E-02	1.02207	3.15905	181.000	1.04463
20.54	-1.02109E 00	-1.55924E-02	1.02120	3.15686	180.875	1.04286
20.56	-1.02003E 00	-1.34493E-02	1.02012	3.15478	180.755	1.04064
20.58	-1.01876E 00	-1.14302E-02	1.01883	3.15281	180.643	1.03801
20.60	-1.01730E 00	-9.55671E-03	1.01734	3.15099	180.538	1.03499
20.62	-1.01565E 00	-7.84795E-03	1.01568	3.14932	180.443	1.03161
20.64	-1.01384E 00	-6.32135E-03	1.01386	3.14783	180.357	1.02792
20.66	-1.01189E 00	-4.99301E-03	1.01190	3.14653	180.283	1.02395
20.68	-1.00982E 00	-3.87566E-03	1.00983	3.14543	180.220	1.01975
20.70	-1.00765E 00	-2.98061E-03	1.00765	3.14455	180.169	1.01537
20.72	-1.00540E 00	-2.31648E-03	1.00541	3.14390	180.132	1.01084
20.74	-1.00311E 00	-1.88907E-03	1.00311	3.14348	180.108	1.00623
20.76	-1.00079E 00	-1.70228E-03	1.00079	3.14329	180.097	1.00158
20.78	-9.98464E-01	-1.75687E-03	0.99847	3.14335	180.101	0.99693
20.80	-9.96167E-01	-2.05143E-03	0.99617	3.14365	180.118	0.99235
20.82	-9.93919E-01	-2.58125E-03	0.99392	3.14419	180.149	0.98788
20.84	-9.91744E-01	-3.33973E-03	0.99175	3.14496	180.193	0.98357
20.86	-9.89665E-01	-4.31783E-03	0.98967	3.14596	180.250	0.97946
20.88	-9.87705E-01	-5.50405E-03	0.98772	3.14717	180.319	0.97559
20.90	-9.85884E-01	-6.88453E-03	0.98591	3.14858	180.400	0.97201
20.92	-9.84220E-01	-8.44362E-03	0.98426	3.15017	180.492	0.96876
20.94	-9.82733E-01	-1.01634E-02	0.98279	3.15193	180.593	0.96587
20.96	-9.81436E-01	-1.20249E-02	0.98151	3.15384	180.702	0.96336
20.98	-9.80343E-01	-1.40071E-02	0.98044	3.15588	180.819	0.96127
21.00	-9.79466E-01	-1.60883E-02	0.97960	3.15802	180.941	0.95961

Ka	Re G	Im G	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
21.00	-9.79466E-01	-1.60883E-02	0.97960	3.15802	180.941	0.95961
21.02	-9.78812E-01	-1.82454E-02	0.97898	3.16023	181.068	0.95841
21.04	-9.78389E-01	-2.04549E-02	0.97860	3.16250	181.198	0.95766
21.06	-9.78199E-01	-2.26919E-02	0.97846	3.16479	181.329	0.95739
21.08	-9.78245E-01	-2.49332E-02	0.97856	3.16707	181.460	0.95759
21.10	-9.78525E-01	-2.71534E-02	0.97890	3.16933	181.590	0.95825
21.12	-9.79034E-01	-2.93289E-02	0.97947	3.17154	181.716	0.95937
21.14	-9.79768E-01	-3.14360E-02	0.98027	3.17367	181.838	0.96093
21.16	-9.80716E-01	-3.34524E-02	0.98129	3.17569	181.954	0.96292
21.18	-9.81869E-01	-3.53560E-02	0.98251	3.17759	182.062	0.96532
21.20	-9.83213E-01	-3.71273E-02	0.98391	3.17934	182.163	0.96809
21.22	-9.84733E-01	-3.87463E-02	0.98549	3.18092	182.253	0.97120
21.24	-9.86412E-01	-4.01969E-02	0.98723	3.18232	182.334	0.97462
21.26	-9.88232E-01	-4.14630E-02	0.98910	3.18352	182.403	0.97832
21.28	-9.90172E-01	-4.25320E-02	0.99108	3.18452	182.460	0.98225
21.30	-9.92211E-01	-4.33923E-02	0.99316	3.18530	182.504	0.98636
21.32	-9.94327E-01	-4.40358E-02	0.99530	3.18585	182.536	0.99062
21.34	-9.96496E-01	-4.44556E-02	0.99749	3.18618	182.554	0.99498
21.36	-9.98697E-01	-4.46478E-02	0.99969	3.18627	182.560	0.99939
21.38	-1.00090E 00	-4.46109E-02	1.00190	3.18613	182.552	1.00380
21.40	-1.00309E 00	-4.43458E-02	1.00407	3.18577	182.531	1.00816
21.42	-1.00524E 00	-4.38558E-02	1.00620	3.18519	182.498	1.01244
21.44	-1.00733E 00	-4.31470E-02	1.00825	3.18440	182.453	1.01657
21.46	-1.00933E 00	-4.22273E-02	1.01021	3.18341	182.396	1.02052
21.48	-1.01122E 00	-4.11070E-02	1.01205	3.18222	182.328	1.02426
21.50	-1.01299E 00	-3.97988E-02	1.01377	3.18086	182.250	1.02772
21.52	-1.01461E 00	-3.83171E-02	1.01533	3.17934	182.163	1.03089
21.54	-1.01606E 00	-3.66780E-02	1.01672	3.17768	182.067	1.03373
21.56	-1.01734E 00	-3.48997E-02	1.01794	3.17588	181.965	1.03620
21.58	-1.01843E 00	-3.30015E-02	1.01897	3.17399	181.856	1.03829
21.60	-1.01932E 00	-3.10038E-02	1.01979	3.17200	181.742	1.03997
21.62	-1.02000E 00	-2.89283E-02	1.02041	3.16995	181.625	1.04123
21.64	-1.02045E 00	-2.67976E-02	1.02081	3.16785	181.504	1.04204
21.66	-1.02069E 00	-2.46340E-02	1.02099	3.16572	181.383	1.04242
21.68	-1.02071E 00	-2.24612E-02	1.02095	3.16359	181.261	1.04235
21.70	-1.02050E 00	-2.03020E-02	1.02070	3.16148	181.140	1.04183
21.72	-1.02007E 00	-1.81796E-02	1.02023	3.15941	181.021	1.04087
21.74	-1.01943E 00	-1.61161E-02	1.01956	3.15740	180.906	1.03949
21.76	-1.01858E 00	-1.41337E-02	1.01868	3.15547	180.795	1.03770
21.78	-1.01753E 00	-1.22529E-02	1.01761	3.15363	180.690	1.03552
21.80	-1.01630E 00	-1.04934E-02	1.01636	3.15192	180.592	1.03298
21.82	-1.01490E 00	-8.87373E-03	1.01494	3.15034	180.501	1.03010
21.84	-1.01334E 00	-7.41036E-03	1.01337	3.14891	180.419	1.02692
21.86	-1.01165E 00	-6.11809E-03	1.01166	3.14764	180.347	1.02347
21.88	-1.00983E 00	-5.01049E-03	1.00984	3.14655	180.284	1.01978
21.90	-1.00792E 00	-4.09841E-03	1.00792	3.14566	180.233	1.01591
21.92	-1.00592E 00	-3.39074E-03	1.00593	3.14496	180.193	1.01189
21.94	-1.00387E 00	-2.89398E-03	1.00387	3.14448	180.165	1.00776
21.96	-1.00179E 00	-2.61300E-03	1.00179	3.14420	180.149	1.00358
21.98	-9.99687E-01	-2.54970E-03	0.99969	3.14414	180.146	0.99938
22.00	-9.97600E-01	-2.70346E-03	0.99760	3.14430	180.155	0.99521

ka	Re $\underline{G}$	Im $\underline{G}$	G	Φ_{RAD}	Φ_{DEG}	$\sigma/\pi a^2$
22.00	-9.97600E-01	-2.70346E-03	0.99760	3.14430	180.155	0.99521
22.02	-9.95545E-01	-3.07212E-03	0.99555	3.14468	180.177	0.99112
22.04	-9.93545E-01	-3.65055E-03	0.99355	3.14527	180.211	0.98714
22.06	-9.91621E-01	-4.43180E-03	0.99163	3.14606	180.256	0.98333
22.08	-9.89793E-01	-5.40642E-03	0.98981	3.14705	180.313	0.97972
22.10	-9.88082E-01	-6.56328E-03	0.98810	3.14823	180.381	0.97635
22.12	-9.86504E-01	-7.88884E-03	0.98654	3.14959	180.458	0.97325
22.14	-9.85076E-01	-9.36826E-03	0.98512	3.15110	180.545	0.97046
22.16	-9.83814E-01	-1.09849E-02	0.98387	3.15276	180.640	0.96801
22.18	-9.82730E-01	-1.27205E-02	0.98281	3.15454	180.742	0.96592
22.20	-9.81834E-01	-1.45562E-02	0.98194	3.15642	180.849	0.96421
22.22	-9.81138E-01	-1.64712E-02	0.98128	3.15838	180.962	0.96290
22.24	-9.80646E-01	-1.84449E-02	0.98082	3.16040	181.078	0.96201
22.26	-9.80364E-01	-2.04555E-02	0.98058	3.16245	181.195	0.96153
22.28	-9.80295E-01	-2.24809E-02	0.98055	3.16452	181.314	0.96148
22.30	-9.80437E-01	-2.44992E-02	0.98074	3.16658	181.431	0.96186
22.32	-9.80789E-01	-2.64886E-02	0.98115	3.16859	181.547	0.96265
22.34	-9.81347E-01	-2.84274E-02	0.98176	3.17055	181.659	0.96385
22.36	-9.82103E-01	-3.02949E-02	0.98257	3.17243	181.767	0.96544
22.38	-9.83049E-01	-3.20708E-02	0.98357	3.17420	181.869	0.96741
22.40	-9.84174E-01	-3.37362E-02	0.98475	3.17586	181.963	0.96974
22.42	-9.85466E-01	-3.52739E-02	0.98610	3.17737	182.050	0.97239
22.44	-9.86910E-01	-3.66666E-02	0.98759	3.17873	182.128	0.97534
22.46	-9.88490E-01	-3.79002E-02	0.98922	3.17992	182.196	0.97855
22.48	-9.90188E-01	-3.89618E-02	0.99095	3.18092	182.253	0.98199
22.50	-9.91987E-01	-3.98400E-02	0.99279	3.18173	182.300	0.98562
22.52	-9.93865E-01	-4.05258E-02	0.99469	3.18235	182.335	0.98941
22.54	-9.95804E-01	-4.10127E-02	0.99665	3.18275	182.358	0.99331
22.56	-9.97781E-01	-4.12952E-02	0.99864	3.18296	182.370	0.99727
22.58	-9.99775E-01	-4.13716E-02	1.00063	3.18295	182.370	1.00126
22.60	-1.00177E 00	-4.12406E-02	1.00261	3.18274	182.357	1.00524
22.62	-1.00373E 00	-4.09047E-02	1.00456	3.18232	182.334	1.00915
22.64	-1.00565E 00	-4.03676E-02	1.00646	3.18171	182.299	1.01296
22.66	-1.00750E 00	-3.96362E-02	1.00828	3.18091	182.253	1.01663
22.68	-1.00927E 00	-3.87177E-02	1.01001	3.17994	182.197	1.02012
22.70	-1.01093E 00	-3.76233E-02	1.01163	3.17879	182.131	1.02339
22.72	-1.01246E 00	-3.63648E-02	1.01312	3.17749	182.057	1.02640
22.74	-1.01386E 00	-3.49560E-02	1.01446	3.17606	181.975	1.02914
22.76	-1.01511E 00	-3.34124E-02	1.01565	3.17450	181.885	1.03155
22.78	-1.01618E 00	-3.17508E-02	1.01668	3.17283	181.790	1.03364
22.80	-1.01708E 00	-2.99892E-02	1.01753	3.17107	181.689	1.03536
22.82	-1.01780E 00	-2.81463E-02	1.01819	3.16924	181.584	1.03671
22.84	-1.01832E 00	-2.62428E-02	1.01866	3.16736	181.476	1.03766
22.86	-1.01864E 00	-2.42986E-02	1.01893	3.16544	181.366	1.03822
22.88	-1.01876E 00	-2.23346E-02	1.01901	3.16351	181.256	1.03837
22.90	-1.01868E 00	-2.03717E-02	1.01888	3.16159	181.146	1.03812
22.92	-1.01840E 00	-1.84307E-02	1.01856	3.15969	181.037	1.03747
22.94	-1.01792E 00	-1.65326E-02	1.01805	3.15783	180.930	1.03643
22.96	-1.01725E 00	-1.46969E-02	1.01736	3.15604	180.828	1.03501
22.98	-1.01640E 00	-1.29430E-02	1.01648	3.15433	180.730	1.03323
23.00	-1.01537E 00	-1.12900E-02	1.01543	3.15271	180.637	1.03110

ka	Re G	Im G	G	Φ RAD	Φ DEG	σ/πa²
23.00	-1.01537E 00	-1.12900E-02	1.01543	3.15271	180.637	1.03110
23.02	-1.01418E 00	-9.75446E-03	1.01423	3.15121	180.551	1.02866
23.04	-1.01285E 00	-8.35195E-03	1.01288	3.14984	180.472	1.02593
23.06	-1.01138E 00	-7.09786E-03	1.01140	3.14861	180.402	1.02293
23.08	-1.00979E 00	-6.00467E-03	1.00980	3.14754	180.341	1.01971
23.10	-1.00810E 00	-5.08302E-03	1.00811	3.14663	180.289	1.01629
23.12	-1.00633E 00	-4.34224E-03	1.00634	3.14591	180.247	1.01272
23.14	-1.00450E 00	-3.78952E-03	1.00450	3.14537	180.216	1.00903
23.16	-1.00262E 00	-3.43009E-03	1.00263	3.14501	180.196	1.00526
23.18	-1.00073E 00	-3.26712E-03	1.00073	3.14486	180.187	1.00146
23.20	-9.98828E-01	-3.30125E-03	0.99883	3.14490	180.189	0.99767
23.22	-9.96948E-01	-3.53122E-03	0.99695	3.14513	180.203	0.99392
23.24	-9.95108E-01	-3.95410E-03	0.99512	3.14557	180.228	0.99025
23.26	-9.93325E-01	-4.56405E-03	0.99334	3.14619	180.263	0.98672
23.28	-9.91620E-01	-5.35428E-03	0.99163	3.14699	180.309	0.98334
23.30	-9.90011E-01	-6.31485E-03	0.99003	3.14797	180.365	0.98016
23.32	-9.88514E-01	-7.43530E-03	0.98854	3.14911	180.431	0.97722
23.34	-9.87146E-01	-8.70291E-03	0.98718	3.15041	180.505	0.97453
23.36	-9.85920E-01	-1.01025E-02	0.98597	3.15184	180.587	0.97214
23.38	-9.84849E-01	-1.16197E-02	0.98492	3.15339	180.676	0.97006
23.40	-9.83944E-01	-1.32364E-02	0.98403	3.15504	180.771	0.96832
23.42	-9.83215E-01	-1.49357E-02	0.98333	3.15678	180.870	0.96693
23.44	-9.82668E-01	-1.66984E-02	0.98281	3.15858	180.974	0.96592
23.46	-9.82310E-01	-1.85049E-02	0.98248	3.16043	181.079	0.96527
23.48	-9.82142E-01	-2.03364E-02	0.98235	3.16230	181.186	0.96502
23.50	-9.82168E-01	-2.21723E-02	0.98242	3.16416	181.293	0.96514
23.52	-9.82384E-01	-2.39924E-02	0.98268	3.16601	181.399	0.96565
23.54	-9.82789E-01	-2.57772E-02	0.98313	3.16782	181.502	0.96654
23.56	-9.83378E-01	-2.75079E-02	0.98376	3.16956	181.602	0.96779
23.58	-9.84144E-01	-2.91654E-02	0.98458	3.17122	181.697	0.96939
23.60	-9.85078E-01	-3.07320E-02	0.98556	3.17278	181.787	0.97132
23.62	-9.86169E-01	-3.21912E-02	0.98669	3.17422	181.870	0.97356
23.64	-9.87405E-01	-3.35270E-02	0.98797	3.17553	181.945	0.97609
23.66	-9.88772E-01	-3.47259E-02	0.98938	3.17670	182.011	0.97888
23.68	-9.90256E-01	-3.57752E-02	0.99090	3.17770	182.069	0.98189
23.70	-9.91840E-01	-3.66632E-02	0.99252	3.17854	182.117	0.98509
23.72	-9.93507E-01	-3.73812E-02	0.99421	3.17920	182.155	0.98845
23.74	-9.95238E-01	-3.79220E-02	0.99596	3.17968	182.182	0.99194
23.76	-9.97015E-01	-3.82798E-02	0.99775	3.17997	182.199	0.99550
23.78	-9.98818E-01	-3.84512E-02	0.99956	3.18007	182.205	0.99912
23.80	-1.00063E 00	-3.84349E-02	1.00137	3.17998	182.200	1.00273
23.82	-1.00243E 00	-3.82316E-02	1.00315	3.17971	182.184	1.00632
23.84	-1.00419E 00	-3.78434E-02	1.00490	3.17926	182.158	1.00983
23.86	-1.00591E 00	-3.72753E-02	1.00660	3.17863	182.122	1.01324
23.88	-1.00755E 00	-3.65337E-02	1.00822	3.17784	182.077	1.01650
23.90	-1.00911E 00	-3.56269E-02	1.00974	3.17688	182.022	1.01958
23.92	-1.01057E 00	-3.45647E-02	1.01116	3.17578	181.959	1.02245
23.94	-1.01191E 00	-3.33590E-02	1.01246	3.17455	181.888	1.02508
23.96	-1.01312E 00	-3.20233E-02	1.01363	3.17319	181.810	1.02744
23.98	-1.01418E 00	-3.05721E-02	1.01464	3.17173	181.727	1.02950
24.00	-1.01509E 00	-2.90206E-02	1.01550	3.17017	181.638	1.03125

ka	Re $\underline{G}$	Im $\underline{G}$	G	Φ_{RAD}	Φ_{DEG}	$\sigma/\pi a^2$
24.00	-1.01509E 00	-2.90206E-02	1.01550	3.17017	181.638	1.03125
24.02	-1.01583E 00	-2.73864E-02	1.01620	3.16855	181.544	1.03266
24.04	-1.01640E 00	-2.56862E-02	1.01672	3.16686	181.448	1.03373
24.06	-1.01679E 00	-2.39392E-02	1.01707	3.16513	181.349	1.03444
24.08	-1.01700E 00	-2.21636E-02	1.01724	3.16338	181.248	1.03478
24.10	-1.01703E 00	-2.03785E-02	1.01723	3.16163	181.148	1.03476
24.12	-1.01687E 00	-1.86029E-02	1.01704	3.15988	181.048	1.03438
24.14	-1.01654E 00	-1.68559E-02	1.01668	3.15817	180.950	1.03363
24.16	-1.01602E 00	-1.51554E-02	1.01614	3.15651	180.855	1.03253
24.18	-1.01534E 00	-1.35199E-02	1.01543	3.15491	180.763	1.03110
24.20	-1.01449E 00	-1.19663E-02	1.01456	3.15339	180.676	1.02934
24.22	-1.01349E 00	-1.05109E-02	1.01355	3.15196	180.594	1.02728
24.24	-1.01235E 00	-9.16886E-03	1.01239	3.15065	180.519	1.02494
24.26	-1.01108E 00	-7.95417E-03	1.01111	3.14946	180.451	1.02235
24.28	-1.00969E 00	-6.87912E-03	1.00972	3.14841	180.390	1.01953
24.30	-1.00821E 00	-5.95470E-03	1.00823	3.14750	180.338	1.01652
24.32	-1.00664E 00	-5.19018E-03	1.00665	3.14675	180.295	1.01335
24.34	-1.00500E 00	-4.59292E-03	1.00502	3.14616	180.262	1.01006
24.36	-1.00332E 00	-4.16908E-03	1.00333	3.14575	180.238	1.00667
24.38	-1.00161E 00	-3.92207E-03	1.00161	3.14551	180.224	1.00323
24.40	-9.99880E-01	-3.85414E-03	0.99989	3.14545	180.221	0.99978
24.42	-9.98160E-01	-3.96489E-03	0.99817	3.14556	180.228	0.99634
24.44	-9.96466E-01	-4.25276E-03	0.99647	3.14586	180.245	0.99296
24.46	-9.94814E-01	-4.71386E-03	0.99483	3.14633	180.271	0.98968
24.48	-9.93224E-01	-5.34234E-03	0.99324	3.14697	180.308	0.98652
24.50	-9.91711E-01	-6.13065E-03	0.99173	3.14777	180.354	0.98353
24.52	-9.90292E-01	-7.07002E-03	0.99032	3.14873	180.409	0.98073
24.54	-9.88982E-01	-8.14953E-03	0.98902	3.14983	180.472	0.97815
24.56	-9.87793E-01	-9.35706E-03	0.98784	3.15107	180.543	0.97582
24.58	-9.86740E-01	-1.06789E-02	0.98680	3.15241	180.620	0.97377
24.60	-9.85832E-01	-1.21002E-02	0.98591	3.15387	180.703	0.97201
24.62	-9.85080E-01	-1.36057E-02	0.98517	3.15540	180.791	0.97057
24.64	-9.84490E-01	-1.51786E-02	0.98461	3.15701	180.883	0.96945
24.66	-9.84068E-01	-1.68015E-02	0.98421	3.15866	180.978	0.96867
24.68	-9.83819E-01	-1.84567E-02	0.98399	3.16035	181.075	0.96824
24.70	-9.83744E-01	-2.01259E-02	0.98395	3.16205	181.172	0.96816
24.72	-9.83844E-01	-2.17916E-02	0.98409	3.16374	181.269	0.96842
24.74	-9.84118E-01	-2.34350E-02	0.98440	3.16540	181.364	0.96904
24.76	-9.84561E-01	-2.50389E-02	0.98488	3.16702	181.457	0.96999
24.78	-9.85168E-01	-2.65858E-02	0.98553	3.16857	181.546	0.97126
24.80	-9.85933E-01	-2.80591E-02	0.98633	3.17004	181.630	0.97285
24.82	-9.86847E-01	-2.94430E-02	0.98729	3.17142	181.709	0.97473
24.84	-9.87899E-01	-3.07226E-02	0.98838	3.17268	181.781	0.97689
24.86	-9.89078E-01	-3.18850E-02	0.98959	3.17382	181.846	0.97929
24.88	-9.90371E-01	-3.29169E-02	0.99092	3.17482	181.904	0.98192
24.90	-9.91763E-01	-3.38082E-02	0.99234	3.17567	181.952	0.98474
24.92	-9.93239E-01	-3.45493E-02	0.99384	3.17636	181.992	0.98772
24.94	-9.94783E-01	-3.51326E-02	0.99540	3.17689	182.023	0.99083
24.96	-9.96379E-01	-3.55519E-02	0.99701	3.17726	182.044	0.99404
24.98	-9.98009E-01	-3.58034E-02	0.99865	3.17745	182.055	0.99730
25.00	-9.99655E-01	-3.58846E-02	1.00030	3.17747	182.056	1.00060

ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
25.00	-9.99655E-01	-3.58846E-02	1.00030	3.17747	182.056	1.00060
25.02	-1.00130E 00	-3.57950E-02	1.00194	3.17733	182.047	1.00388
25.04	-1.00293E 00	-3.55357E-02	1.00356	3.17701	182.029	1.00712
25.06	-1.00451E 00	-3.51103E-02	1.00513	3.17653	182.002	1.01028
25.08	-1.00605E 00	-3.45230E-02	1.00664	3.17589	181.965	1.01333
25.10	-1.00752E 00	-3.37811E-02	1.00808	3.17511	181.920	1.01623
25.12	-1.00890E 00	-3.28927E-02	1.00944	3.17418	181.867	1.01896
25.14	-1.01018E 00	-3.18672E-02	1.01068	3.17313	181.807	1.02148
25.16	-1.01135E 00	-3.07163E-02	1.01182	3.17195	181.740	1.02377
25.18	-1.01239E 00	-2.94526E-02	1.01282	3.17068	181.666	1.02581
25.20	-1.01330E 00	-2.80896E-02	1.01369	3.16931	181.588	1.02756
25.22	-1.01406E 00	-2.66421E-02	1.01441	3.16786	181.505	1.02903
25.24	-1.01467E 00	-2.51257E-02	1.01498	3.16635	181.418	1.03018
25.26	-1.01512E 00	-2.35570E-02	1.01539	3.16479	181.329	1.03102
25.28	-1.01540E 00	-2.19525E-02	1.01564	3.16321	181.239	1.03152
25.30	-1.01552E 00	-2.03297E-02	1.01572	3.16161	181.147	1.03169
25.32	-1.01547E 00	-1.87053E-02	1.01564	3.16001	181.055	1.03153
25.34	-1.01526E 00	-1.70973E-02	1.01540	3.15843	180.965	1.03104
25.36	-1.01488E 00	-1.55223E-02	1.01500	3.15689	180.876	1.03022
25.38	-1.01434E 00	-1.39971E-02	1.01444	3.15539	180.791	1.02909
25.40	-1.01366E 00	-1.25378E-02	1.01373	3.15396	180.709	1.02766
25.42	-1.01282E 00	-1.11593E-02	1.01289	3.15261	180.631	1.02594
25.44	-1.01186E 00	-9.87684E-03	1.01190	3.15135	180.559	1.02395
25.46	-1.01076E 00	-8.70290E-03	1.01080	3.15020	180.493	1.02172
25.48	-1.00956E 00	-7.64997E-03	1.00959	3.14917	180.434	1.01927
25.50	-1.00825E 00	-6.72868E-03	1.00828	3.14827	180.382	1.01662
25.52	-1.00687E 00	-5.94839E-03	1.00688	3.14750	180.338	1.01382
25.54	-1.00541E 00	-5.31711E-03	1.00542	3.14688	180.303	1.01088
25.56	-1.00390E 00	-4.84082E-03	1.00391	3.14641	180.276	1.00783
25.58	-1.00235E 00	-4.52369E-03	1.00236	3.14611	180.259	1.00472
25.60	-1.00078E 00	-4.36885E-03	1.00079	3.14596	180.250	1.00158
25.62	-9.99206E-01	-4.37747E-03	0.99922	3.14597	180.251	0.99843
25.64	-9.97646E-01	-4.54838E-03	0.99766	3.14615	180.261	0.99532
25.66	-9.96116E-01	-4.87933E-03	0.99613	3.14649	180.281	0.99227
25.68	-9.94633E-01	-5.36607E-03	0.99465	3.14699	180.309	0.98932
25.70	-9.93212E-01	-6.00293E-03	0.99323	3.14764	180.346	0.98651
25.72	-9.91868E-01	-6.78173E-03	0.99189	3.14843	180.392	0.98385
25.74	-9.90614E-01	-7.69461E-03	0.99064	3.14936	180.445	0.98138
25.76	-9.89466E-01	-8.73054E-03	0.98950	3.15042	180.506	0.97912
25.78	-9.88434E-01	-9.87766E-03	0.98848	3.15159	180.573	0.97710
25.80	-9.87530E-01	-1.11242E-02	0.98759	3.15286	180.645	0.97534
25.82	-9.86762E-01	-1.24550E-02	0.98684	3.15421	180.723	0.97385
25.84	-9.86138E-01	-1.38562E-02	0.98624	3.15564	180.805	0.97266
25.86	-9.85665E-01	-1.53119E-02	0.98578	3.15713	180.890	0.97177
25.88	-9.85348E-01	-1.68070E-02	0.98549	3.15865	180.977	0.97119
25.90	-9.85188E-01	-1.83239E-02	0.98536	3.16019	181.066	0.97093
25.92	-9.85188E-01	-1.98475E-02	0.98539	3.16174	181.154	0.97099
25.94	-9.85348E-01	-2.13598E-02	0.98558	3.16327	181.242	0.97137
25.96	-9.85663E-01	-2.28459E-02	0.98593	3.16477	181.328	0.97205
25.98	-9.86132E-01	-2.42888E-02	0.98643	3.16622	181.411	0.97305
26.00	-9.86749E-01	-2.56733E-02	0.98708	3.16760	181.490	0.97433

ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
26.00	-9.86749E-01	-2.56733E-02	0.98708	3.16760	181.490	0.97433
26.02	-9.87506E-01	-2.69842E-02	0.98787	3.16891	181.565	0.97590
26.04	-9.88394E-01	-2.82081E-02	0.98880	3.17012	181.635	0.97772
26.06	-9.89405E-01	-2.93315E-02	0.98984	3.17123	181.698	0.97978
26.08	-9.90526E-01	-3.03431E-02	0.99099	3.17222	181.755	0.98206
26.10	-9.91746E-01	-3.12314E-02	0.99224	3.17307	181.804	0.98454
26.12	-9.93051E-01	-3.19872E-02	0.99357	3.17379	181.845	0.98717
26.14	-9.94426E-01	-3.26030E-02	0.99496	3.17437	181.878	0.98995
26.16	-9.95858E-01	-3.30728E-02	0.99641	3.17479	181.902	0.99283
26.18	-9.97329E-01	-3.33906E-02	0.99789	3.17506	181.918	0.99578
26.20	-9.98825E-01	-3.35546E-02	0.99939	3.17517	181.924	0.99878
26.22	-1.00033E 00	-3.35626E-02	1.00089	3.17513	181.922	1.00178
26.24	-1.00182E 00	-3.34150E-02	1.00238	3.17493	181.910	1.00477
26.26	-1.00330E 00	-3.31135E-02	1.00384	3.17459	181.890	1.00770
26.28	-1.00473E 00	-3.26619E-02	1.00526	3.17409	181.862	1.01055
26.30	-1.00611E 00	-3.20653E-02	1.00662	3.17345	181.825	1.01328
26.32	-1.00741E 00	-3.13306E-02	1.00790	3.17268	181.781	1.01586
26.34	-1.00864E 00	-3.04655E-02	1.00910	3.17179	181.730	1.01828
26.36	-1.00977E 00	-2.94795E-02	1.01020	3.17078	181.672	1.02050
26.38	-1.01079E 00	-2.83837E-02	1.01118	3.16967	181.608	1.02249
26.40	-1.01169E 00	-2.71899E-02	1.01205	3.16846	181.539	1.02425
26.42	-1.01246E 00	-2.59110E-02	1.01279	3.16718	181.466	1.02575
26.44	-1.01310E 00	-2.45609E-02	1.01340	3.16583	181.389	1.02697
26.46	-1.01359E 00	-2.31541E-02	1.01386	3.16443	181.309	1.02790
26.48	-1.01394E 00	-2.17057E-02	1.01417	3.16300	181.226	1.02854
26.50	-1.01414E 00	-2.02316E-02	1.01434	3.16154	181.143	1.02888
26.52	-1.01418E 00	-1.87466E-02	1.01435	3.16008	181.059	1.02891
26.54	-1.01407E 00	-1.72675E-02	1.01422	3.15862	180.976	1.02864
26.56	-1.01381E 00	-1.58095E-02	1.01394	3.15719	180.893	1.02807
26.58	-1.01341E 00	-1.43879E-02	1.01351	3.15579	180.813	1.02720
26.60	-1.01286E 00	-1.30181E-02	1.01294	3.15444	180.736	1.02605
26.62	-1.01217E 00	-1.17142E-02	1.01224	3.15317	180.663	1.02463
26.64	-1.01136E 00	-1.04902E-02	1.01141	3.15196	180.594	1.02296
26.66	-1.01043E 00	-9.35839E-03	1.01047	3.15085	180.531	1.02105
26.68	-1.00938E 00	-8.33086E-03	1.00942	3.14985	180.473	1.01892
26.70	-1.00824E 00	-7.41812E-03	1.00827	3.14895	180.422	1.01661
26.72	-1.00702E 00	-6.62922E-03	1.00704	3.14818	180.377	1.01413
26.74	-1.00572E 00	-5.97225E-03	1.00574	3.14753	180.340	1.01151
26.76	-1.00437E 00	-5.45381E-03	1.00438	3.14702	180.311	1.00878
26.78	-1.00297E 00	-5.07907E-03	1.00298	3.14666	180.290	1.00597
26.80	-1.00154E 00	-4.85082E-03	1.00156	3.14644	180.278	1.00311
26.82	-1.00011E 00	-4.77172E-03	1.00012	3.14636	180.273	1.00024
26.84	-9.98672E-01	-4.84146E-03	0.99868	3.14644	180.278	0.99737
26.86	-9.97256E-01	-5.05890E-03	0.99727	3.14667	180.291	0.99454
26.88	-9.95873E-01	-5.42138E-03	0.99589	3.14704	180.312	0.99179
26.90	-9.94539E-01	-5.92393E-03	0.99456	3.14755	180.341	0.98914
26.92	-9.93267E-01	-6.56128E-03	0.99329	3.14820	180.378	0.98662
26.94	-9.92071E-01	-7.32530E-03	0.99210	3.14898	180.423	0.98426
26.96	-9.90964E-01	-8.20781E-03	0.99100	3.14988	180.475	0.98208
26.98	-9.89957E-01	-9.19872E-03	0.99000	3.15088	180.532	0.98010
27.00	-9.89060E-01	-1.02868E-02	0.98911	3.15199	180.596	0.97835

ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
27.00	-9.89060E-01	-1.02868E-02	0.98911	3.15199	180.596	0.97835
27.02	-9.88284E-01	-1.14602E-02	0.98835	3.15319	180.664	0.97684
27.04	-9.87636E-01	-1.27055E-02	0.98772	3.15446	180.737	0.97559
27.06	-9.87122E-01	-1.40094E-02	0.98722	3.15578	180.813	0.97461
27.08	-9.86748E-01	-1.53573E-02	0.98687	3.15715	180.892	0.97391
27.10	-9.86517E-01	-1.67348E-02	0.98666	3.15855	180.972	0.97350
27.12	-9.86432E-01	-1.81266E-02	0.98660	3.15997	181.053	0.97338
27.14	-9.86492E-01	-1.95177E-02	0.98668	3.16138	181.133	0.97355
27.16	-9.86697E-01	-2.08931E-02	0.98692	3.16276	181.213	0.97401
27.18	-9.87044E-01	-2.22377E-02	0.98729	3.16412	181.291	0.97475
27.20	-9.87530E-01	-2.35374E-02	0.98781	3.16542	181.365	0.97577
27.22	-9.88147E-01	-2.47778E-02	0.98846	3.16666	181.436	0.97705
27.24	-9.88891E-01	-2.59459E-02	0.98923	3.16782	181.503	0.97858
27.26	-9.89750E-01	-2.70293E-02	0.99012	3.16890	181.564	0.98034
27.28	-9.90718E-01	-2.80160E-02	0.99111	3.16986	181.620	0.98231
27.30	-9.91783E-01	-2.88962E-02	0.99220	3.17072	181.669	0.98447
27.32	-9.92932E-01	-2.96601E-02	0.99338	3.17145	181.711	0.98679
27.34	-9.94155E-01	-3.03000E-02	0.99462	3.17206	181.746	0.98926
27.36	-9.95436E-01	-3.08094E-02	0.99591	3.17253	181.773	0.99184
27.38	-9.96762E-01	-3.11827E-02	0.99725	3.17287	181.792	0.99451
27.40	-9.98120E-01	-3.14160E-02	0.99861	3.17306	181.803	0.99723
27.42	-9.99494E-01	-3.15076E-02	0.99999	3.17311	181.806	0.99998
27.44	-1.00087E 00	-3.14563E-02	1.00136	3.17301	181.800	1.00273
27.46	-1.00223E 00	-3.12634E-02	1.00272	3.17278	181.787	1.00544
27.48	-1.00357E 00	-3.09309E-02	1.00404	3.17240	181.765	1.00810
27.50	-1.00486E 00	-3.04625E-02	1.00532	3.17190	181.736	1.01067
27.52	-1.00609E 00	-2.98640E-02	1.00654	3.17127	181.700	1.01312
27.54	-1.00726E 00	-2.91414E-02	1.00768	3.17052	181.657	1.01542
27.56	-1.00835E 00	-2.83034E-02	1.00874	3.16965	181.608	1.01757
27.58	-1.00934E 00	-2.73583E-02	1.00971	3.16869	181.553	1.01952
27.60	-1.01023E 00	-2.63170E-02	1.01057	3.16764	181.492	1.02126
27.62	-1.01101E 00	-2.51908E-02	1.01132	3.16650	181.427	1.02277
27.64	-1.01167E 00	-2.39917E-02	1.01195	3.16530	181.359	1.02405
27.66	-1.01220E 00	-2.27328E-02	1.01245	3.16405	181.287	1.02506
27.68	-1.01260E 00	-2.14276E-02	1.01282	3.16275	181.212	1.02581
27.70	-1.01286E 00	-2.00898E-02	1.01306	3.16142	181.136	1.02629
27.72	-1.01298E 00	-1.87340E-02	1.01316	3.16008	181.059	1.02648
27.74	-1.01297E 00	-1.73745E-02	1.01311	3.15874	180.983	1.02640
27.76	-1.01281E 00	-1.60259E-02	1.01294	3.15741	180.907	1.02604
27.78	-1.01252E 00	-1.47026E-02	1.01263	3.15611	180.832	1.02541
27.80	-1.01209E 00	-1.34181E-02	1.01218	3.15485	180.760	1.02451
27.82	-1.01154E 00	-1.21866E-02	1.01161	3.15364	180.690	1.02336
27.84	-1.01086E 00	-1.10203E-02	1.01092	3.15249	180.625	1.02196
27.86	-1.01007E 00	-9.93182E-03	1.01012	3.15143	180.563	1.02034
27.88	-1.00917E 00	-8.93247E-03	1.00921	3.15044	180.507	1.01851
27.90	-1.00818E 00	-8.03254E-03	1.00821	3.14956	180.456	1.01650
27.92	-1.00710E 00	-7.24132E-03	1.00713	3.14878	180.412	1.01431
27.94	-1.00595E 00	-6.56669E-03	1.00598	3.14812	180.374	1.01199
27.96	-1.00474E 00	-6.01522E-03	1.00476	3.14758	180.343	1.00954
27.98	-1.00348E 00	-5.59284E-03	1.00350	3.14717	180.319	1.00701
28.00	-1.00219E 00	-5.30353E-03	1.00221	3.14688	180.303	1.00442

Ka	Re G	Im G	G	Φ RAD	Φ DEG	σ/πa²
28.00	-1.00219E 00	-5.30353E-03	1.00221	3.14688	180.303	1.00442
28.02	-1.00088E 00	-5.14944E-03	1.00089	3.14674	180.295	1.00178
28.04	-9.99561E-01	-5.13181E-03	0.99957	3.14673	180.294	0.99915
28.06	-9.98251E-01	-5.25058E-03	0.99827	3.14685	180.301	0.99653
28.08	-9.96964E-01	-5.50380E-03	0.99698	3.14711	180.316	0.99397
28.10	-9.95714E-01	-5.88837E-03	0.99573	3.14751	180.339	0.99148
28.12	-9.94512E-01	-6.39967E-03	0.99453	3.14803	180.369	0.98910
28.14	-9.93373E-01	-7.03145E-03	0.99340	3.14867	180.406	0.98684
28.16	-9.92308E-01	-7.77650E-03	0.99234	3.14943	180.449	0.98474
28.18	-9.91329E-01	-8.62648E-03	0.99137	3.15029	180.499	0.98281
28.20	-9.90445E-01	-9.57188E-03	0.99049	3.15126	180.554	0.98107
28.22	-9.89667E-01	-1.06020E-02	0.98972	3.15230	180.614	0.97955
28.24	-9.89001E-01	-1.17053E-02	0.98907	3.15343	180.678	0.97826
28.26	-9.88456E-01	-1.28707E-02	0.98854	3.15461	180.746	0.97721
28.28	-9.88035E-01	-1.40838E-02	0.98814	3.15585	180.817	0.97641
28.30	-9.87745E-01	-1.53321E-02	0.98786	3.15711	180.889	0.97587
28.32	-9.87586E-01	-1.66022E-02	0.98773	3.15840	180.963	0.97560
28.34	-9.87561E-01	-1.78802E-02	0.98772	3.15970	181.037	0.97560
28.36	-9.87670E-01	-1.91515E-02	0.98786	3.16098	181.111	0.97586
28.38	-9.87911E-01	-2.04032E-02	0.98812	3.16224	181.183	0.97638
28.40	-9.88280E-01	-2.16214E-02	0.98852	3.16347	181.253	0.97717
28.42	-9.88775E-01	-2.27930E-02	0.98904	3.16464	181.321	0.97819
28.44	-9.89388E-01	-2.39056E-02	0.98968	3.16575	181.384	0.97946
28.46	-9.90113E-01	-2.49474E-02	0.99043	3.16678	181.443	0.98095
28.48	-9.90943E-01	-2.59066E-02	0.99128	3.16773	181.498	0.98264
28.50	-9.91867E-01	-2.67740E-02	0.99223	3.16858	181.546	0.98452
28.52	-9.92876E-01	-2.75400E-02	0.99326	3.16932	181.589	0.98656
28.54	-9.93958E-01	-2.81963E-02	0.99436	3.16995	181.625	0.98875
28.56	-9.95103E-01	-2.87363E-02	0.99552	3.17046	181.654	0.99105
28.58	-9.96296E-01	-2.91543E-02	0.99672	3.17085	181.676	0.99346
28.60	-9.97526E-01	-2.94464E-02	0.99796	3.17110	181.691	0.99593
28.62	-9.98779E-01	-2.96088E-02	0.99922	3.17123	181.698	0.99844
28.64	-1.00004E 00	-2.96411E-02	1.00048	3.17122	181.698	1.00096
28.66	-1.00130E 00	-2.95423E-02	1.00174	3.17109	181.690	1.00348
28.68	-1.00254E 00	-2.93138E-02	1.00297	3.17082	181.675	1.00595
28.70	-1.00375E 00	-2.89589E-02	1.00417	3.17044	181.653	1.00836
28.72	-1.00492E 00	-2.84812E-02	1.00532	3.16993	181.623	1.01067
28.74	-1.00603E 00	-2.78863E-02	1.00642	3.16930	181.588	1.01287
28.76	-1.00707E 00	-2.71799E-02	1.00744	3.16858	181.546	1.01493
28.78	-1.00804E 00	-2.63710E-02	1.00838	3.16775	181.499	1.01683
28.80	-1.00891E 00	-2.54675E-02	1.00923	3.16683	181.446	1.01855
28.82	-1.00969E 00	-2.44796E-02	1.00999	3.16583	181.389	1.02007
28.84	-1.01036E 00	-2.34181E-02	1.01063	3.16477	181.328	1.02138
28.86	-1.01092E 00	-2.22944E-02	1.01117	3.16364	181.263	1.02246
28.88	-1.01136E 00	-2.11202E-02	1.01158	3.16247	181.196	1.02330
28.90	-1.01168E 00	-1.99088E-02	1.01187	3.16127	181.127	1.02389
28.92	-1.01187E 00	-1.86729E-02	1.01204	3.16004	181.057	1.02422
28.94	-1.01193E 00	-1.74251E-02	1.01208	3.15881	180.987	1.02431
28.96	-1.01187E 00	-1.61795E-02	1.01199	3.15758	180.916	1.02413
28.98	-1.01167E 00	-1.49488E-02	1.01178	3.15637	180.847	1.02371
29.00	-1.01136E 00	-1.37461E-02	1.01145	3.15518	180.779	1.02303

ka	Re G	Im G	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
30.00	-1.00772E 00	-2.46382E-02	1.00802	3.16604	181.401	1.01610
30.02	-1.00849E 00	-2.37763E-02	1.00877	3.16516	181.351	1.01761
30.04	-1.00917E 00	-2.28406E-02	1.00943	3.16422	181.297	1.01894
30.06	-1.00975E 00	-2.18406E-02	1.00998	3.16322	181.239	1.02006
30.08	-1.01022E 00	-2.07877E-02	1.01043	3.16217	181.179	1.02097
30.10	-1.01058E 00	-1.96929E-02	1.01077	3.16108	181.116	1.02166
30.12	-1.01083E 00	-1.85681E-02	1.01100	3.15996	181.052	1.02212
30.14	-1.01096E 00	-1.74250E-02	1.01111	3.15883	180.987	1.02234
30.16	-1.01097E 00	-1.62764E-02	1.01110	3.15769	180.922	1.02233
30.18	-1.01087E 00	-1.51338E-02	1.01098	3.15656	180.858	1.02208
30.20	-1.01065E 00	-1.40099E-02	1.01074	3.15545	180.794	1.02160
30.22	-1.01031E 00	-1.29160E-02	1.01039	3.15438	180.732	1.02090
30.24	-1.00987E 00	-1.18642E-02	1.00994	3.15334	180.673	1.01997
30.26	-1.00932E 00	-1.08652E-02	1.00938	3.15236	180.617	1.01884
30.28	-1.00867E 00	-9.92957E-03	1.00872	3.15144	180.564	1.01752
30.30	-1.00793E 00	-9.06696E-03	1.00797	3.15059	180.515	1.01601
30.32	-1.00711E 00	-8.28632E-03	1.00715	3.14982	180.471	1.01434
30.34	-1.00622E 00	-7.59591E-03	1.00624	3.14914	180.433	1.01253
30.36	-1.00526E 00	-7.00231E-03	1.00528	3.14856	180.399	1.01059
30.38	-1.00424E 00	-6.51188E-03	1.00426	3.14808	180.372	1.00855
30.40	-1.00319E 00	-6.12951E-03	1.00321	3.14770	180.350	1.00642
30.42	-1.00210E 00	-5.85864E-03	1.00212	3.14744	180.335	1.00424
30.44	-1.00099E 00	-5.70181E-03	1.00101	3.14729	180.326	1.00202
30.46	-9.99878E-01	-5.66051E-03	0.99989	3.14725	180.324	0.99979
30.48	-9.98768E-01	-5.73438E-03	0.99878	3.14733	180.329	0.99757
30.50	-9.97674E-01	-5.92247E-03	0.99769	3.14753	180.340	0.99539
30.52	-9.96608E-01	-6.22223E-03	0.99663	3.14784	180.358	0.99327
30.54	-9.95581E-01	-6.63021E-03	0.99560	3.14825	180.382	0.99122
30.56	-9.94603E-01	-7.14168E-03	0.99463	3.14877	180.411	0.98929
30.58	-9.93687E-01	-7.75020E-03	0.99372	3.14939	180.447	0.98747
30.60	-9.92841E-01	-8.44931E-03	0.99288	3.15010	180.488	0.98580
30.62	-9.92073E-01	-9.23116E-03	0.99212	3.15090	180.533	0.98429
30.64	-9.91393E-01	-1.00870E-02	0.99144	3.15177	180.583	0.98296
30.66	-9.90807E-01	-1.10076E-02	0.99087	3.15270	180.637	0.98182
30.68	-9.90321E-01	-1.19821E-02	0.99039	3.15369	180.693	0.98088
30.70	-9.89940E-01	-1.30004E-02	0.99003	3.15472	180.752	0.98015
30.72	-9.89668E-01	-1.40510E-02	0.98977	3.15579	180.813	0.97964
30.74	-9.89507E-01	-1.51230E-02	0.98962	3.15687	180.876	0.97935
30.76	-9.89460E-01	-1.62040E-02	0.98959	3.15797	180.938	0.97929
30.78	-9.89525E-01	-1.72830E-02	0.98968	3.15906	181.001	0.97946
30.80	-9.89702E-01	-1.83480E-02	0.98987	3.16013	181.062	0.97985
30.82	-9.89989E-01	-1.93872E-02	0.99018	3.16117	181.122	0.98045
30.84	-9.90383E-01	-2.03898E-02	0.99059	3.16218	181.179	0.98127
30.86	-9.90879E-01	-2.13449E-02	0.99111	3.16313	181.234	0.98230
30.88	-9.91471E-01	-2.22424E-02	0.99172	3.16402	181.285	0.98351
30.90	-9.92153E-01	-2.30728E-02	0.99242	3.16484	181.332	0.98490
30.92	-9.92918E-01	-2.38268E-02	0.99320	3.16558	181.375	0.98645
30.94	-9.93756E-01	-2.44970E-02	0.99406	3.16624	181.412	0.98815
30.96	-9.94659E-01	-2.50758E-02	0.99498	3.16680	181.444	0.98998
30.98	-9.95617E-01	-2.55575E-02	0.99595	3.16726	181.470	0.99191
31.00	-9.96619E-01	-2.59371E-02	0.99696	3.16761	181.491	0.99392

ka	Re G	Im G	G	Φ RAD	Φ DEG	σ/πa²
31.00	-9.96619E-01	-2.59371E-02	0.99696	3.16761	181.491	0.99392
31.02	-9.97655E-01	-2.62105E-02	0.99800	3.16786	181.505	0.99600
31.04	-9.98713E-01	-2.63749E-02	0.99906	3.16800	181.513	0.99812
31.06	-9.99783E-01	-2.64289E-02	1.00013	3.16802	181.514	1.00026
31.08	-1.00085E 00	-2.63719E-02	1.00120	3.16794	181.509	1.00240
31.10	-1.00191E 00	-2.62051E-02	1.00225	3.16774	181.498	1.00451
31.12	-1.00294E 00	-2.59297E-02	1.00328	3.16744	181.481	1.00656
31.14	-1.00394E 00	-2.55497E-02	1.00427	3.16704	181.458	1.00855
31.16	-1.00490E 00	-2.50692E-02	1.00521	3.16653	181.429	1.01044
31.18	-1.00580E 00	-2.44926E-02	1.00609	3.16594	181.395	1.01222
31.20	-1.00663E 00	-2.38273E-02	1.00691	3.16526	181.356	1.01387
31.22	-1.00739E 00	-2.30802E-02	1.00766	3.16450	181.312	1.01537
31.24	-1.00807E 00	-2.22591E-02	1.00832	3.16367	181.265	1.01671
31.26	-1.00866E 00	-2.13731E-02	1.00889	3.16278	181.214	1.01786
31.28	-1.00916E 00	-2.04317E-02	1.00937	3.16184	181.160	1.01883
31.30	-1.00956E 00	-1.94454E-02	1.00975	3.16085	181.103	1.01959
31.32	-1.00986E 00	-1.84246E-02	1.01002	3.15984	181.045	1.02015
31.34	-1.01004E 00	-1.73798E-02	1.01019	3.15880	180.986	1.02049
31.36	-1.01012E 00	-1.63226E-02	1.01026	3.15775	180.926	1.02062
31.38	-1.01010E 00	-1.52640E-02	1.01021	3.15670	180.866	1.02053
31.40	-1.00996E 00	-1.42154E-02	1.01006	3.15567	180.806	1.02022
31.42	-1.00972E 00	-1.31878E-02	1.00980	3.15465	180.748	1.01970
31.44	-1.00937E 00	-1.21925E-02	1.00944	3.15367	180.692	1.01898
31.46	-1.00892E 00	-1.12391E-02	1.00899	3.15273	180.638	1.01805
31.48	-1.00838E 00	-1.03380E-02	1.00844	3.15184	180.587	1.01694
31.50	-1.00775E 00	-9.49905E-03	1.00780	3.15102	180.540	1.01566
31.52	-1.00704E 00	-8.73040E-03	1.00708	3.15026	180.497	1.01422
31.54	-1.00626E 00	-8.04006E-03	1.00629	3.14958	180.458	1.01263
31.56	-1.00541E 00	-7.43561E-03	1.00544	3.14899	180.424	1.01091
31.58	-1.00451E 00	-6.92255E-03	1.00453	3.14848	180.395	1.00908
31.60	-1.00356E 00	-6.50657E-03	1.00358	3.14808	180.371	1.00717
31.62	-1.00257E 00	-6.19121E-03	1.00259	3.14777	180.354	1.00519
31.64	-1.00156E 00	-5.97948E-03	1.00158	3.14756	180.342	1.00316
31.66	-1.00053E 00	-5.87385E-03	1.00055	3.14746	180.336	1.00110
31.68	-9.99506E-01	-5.87476E-03	0.99952	3.14747	180.337	0.99905
31.70	-9.98486E-01	-5.98211E-03	0.99850	3.14758	180.343	0.99701
31.72	-9.97485E-01	-6.19366E-03	0.99750	3.14780	180.356	0.99501
31.74	-9.96513E-01	-6.50756E-03	0.99653	3.14812	180.374	0.99308
31.76	-9.95581E-01	-6.91925E-03	0.99561	3.14854	180.398	0.99123
31.78	-9.94699E-01	-7.42460E-03	0.99473	3.14906	180.428	0.98948
31.80	-9.93876E-01	-8.01773E-03	0.99391	3.14966	180.462	0.98785
31.82	-9.93121E-01	-8.69169E-03	0.99316	3.15034	180.501	0.98636
31.84	-9.92442E-01	-9.43940E-03	0.99249	3.15110	180.545	0.98503
31.86	-9.91845E-01	-1.02518E-02	0.99190	3.15193	180.592	0.98386
31.88	-9.91337E-01	-1.11209E-02	0.99140	3.15281	180.643	0.98287
31.90	-9.90923E-01	-1.20364E-02	0.99100	3.15374	180.696	0.98207
31.92	-9.90608E-01	-1.29883E-02	0.99069	3.15470	180.751	0.98147
31.94	-9.90394E-01	-1.39664E-02	0.99049	3.15569	180.808	0.98108
31.96	-9.90284E-01	-1.49602E-02	0.99040	3.15670	180.865	0.98089
31.98	-9.90278E-01	-1.59586E-02	0.99041	3.15771	180.923	0.98090
32.00	-9.90376E-01	-1.69509E-02	0.99052	3.15871	180.981	0.98113

ka	Re G	Im G	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
32.00	-9.90376E-01	-1.69509E-02	0.99052	3.15871	180.981	0.98113
32.02	-9.90577E-01	-1.79268E-02	0.99074	3.15969	181.037	0.98156
32.04	-9.90878E-01	-1.88750E-02	0.99106	3.16064	181.091	0.98220
32.06	-9.91277E-01	-1.97857E-02	0.99147	3.16155	181.143	0.98302
32.08	-9.91768E-01	-2.06491E-02	0.99198	3.16241	181.193	0.98403
32.10	-9.92346E-01	-2.14564E-02	0.99258	3.16321	181.239	0.98521
32.12	-9.93004E-01	-2.21982E-02	0.99325	3.16394	181.281	0.98655
32.14	-9.93735E-01	-2.28670E-02	0.99400	3.16460	181.318	0.98803
32.16	-9.94532E-01	-2.34559E-02	0.99481	3.16517	181.351	0.98964
32.18	-9.95386E-01	-2.39585E-02	0.99567	3.16566	181.379	0.99137
32.20	-9.96286E-01	-2.43695E-02	0.99658	3.16605	181.401	0.99318
32.22	-9.97224E-01	-2.46847E-02	0.99753	3.16634	181.418	0.99507
32.24	-9.98189E-01	-2.49009E-02	0.99850	3.16653	181.429	0.99700
32.26	-9.99171E-01	-2.50157E-02	0.99948	3.16662	181.434	0.99897
32.28	-1.00016E 00	-2.50285E-02	1.00047	3.16661	181.433	1.00095
32.30	-1.00114E 00	-2.49391E-02	1.00145	3.16650	181.427	1.00291
32.32	-1.00211E 00	-2.47485E-02	1.00242	3.16628	181.415	1.00484
32.34	-1.00306E 00	-2.44589E-02	1.00336	3.16597	181.397	1.00672
32.36	-1.00397E 00	-2.40736E-02	1.00426	3.16557	181.374	1.00853
32.38	-1.00483E 00	-2.35971E-02	1.00511	3.16507	181.345	1.01024
32.40	-1.00564E 00	-2.30342E-02	1.00591	3.16449	181.312	1.01185
32.42	-1.00639E 00	-2.23914E-02	1.00664	3.16384	181.275	1.01332
32.44	-1.00707E 00	-2.16756E-02	1.00730	3.16311	181.233	1.01465
32.46	-1.00767E 00	-2.08945E-02	1.00788	3.16233	181.188	1.01583
32.48	-1.00818E 00	-2.00567E-02	1.00838	3.16148	181.140	1.01684
32.50	-1.00861E 00	-1.91709E-02	1.00879	3.16060	181.089	1.01766
32.52	-1.00894E 00	-1.82469E-02	1.00911	3.15968	181.036	1.01830
32.54	-1.00918E 00	-1.72945E-02	1.00933	3.15873	180.982	1.01875
32.56	-1.00932E 00	-1.63240E-02	1.00945	3.15776	180.927	1.01899
32.58	-1.00936E 00	-1.53453E-02	1.00947	3.15679	180.871	1.01904
32.60	-1.00930E 00	-1.43694E-02	1.00940	3.15583	180.816	1.01888
32.62	-1.00913E 00	-1.34064E-02	1.00922	3.15488	180.761	1.01853
32.64	-1.00887E 00	-1.24664E-02	1.00895	3.15395	180.708	1.01798
32.66	-1.00852E 00	-1.15592E-02	1.00859	3.15305	180.657	1.01725
32.68	-1.00808E 00	-1.06946E-02	1.00813	3.15220	180.608	1.01633
32.70	-1.00755E 00	-9.88140E-03	1.00760	3.15140	180.562	1.01525
32.72	-1.00694E 00	-9.12837E-03	1.00698	3.15066	180.519	1.01401
32.74	-1.00626E 00	-8.44317E-03	1.00629	3.14998	180.481	1.01263
32.76	-1.00551E 00	-7.83280E-03	1.00554	3.14938	180.446	1.01111
32.78	-1.00471E 00	-7.30359E-03	1.00473	3.14886	180.416	1.00949
32.80	-1.00385E 00	-6.86085E-03	1.00388	3.14843	180.392	1.00777
32.82	-1.00296E 00	-6.50929E-03	1.00298	3.14808	180.372	1.00598
32.84	-1.00204E 00	-6.25168E-03	1.00206	3.14783	180.357	1.00413
32.86	-1.00110E 00	-6.09114E-03	1.00112	3.14768	180.349	1.00224
32.88	-1.00015E 00	-6.02861E-03	1.00017	3.14762	180.345	1.00034
32.90	-9.99203E-01	-6.06458E-03	0.99922	3.14766	180.348	0.99844
32.92	-9.98265E-01	-6.19818E-03	0.99828	3.14780	180.356	0.99657
32.94	-9.97348E-01	-6.42796E-03	0.99737	3.14804	180.369	0.99474
32.96	-9.96461E-01	-6.75050E-03	0.99648	3.14837	180.388	0.99298
32.98	-9.95616E-01	-7.16275E-03	0.99564	3.14879	180.412	0.99130
33.00	-9.94818E-01	-7.65943E-03	0.99485	3.14929	180.441	0.98972

ka	Re $\underline{G}$	Im $\underline{G}$	G	Φ_{RAD}	Φ_{DEG}	$\sigma/\pi a^2$
33.00	-9.94818E-01	-7.65943E-03	0.99485	3.14929	180.441	0.98972
33.02	-9.94079E-01	-8.23515E-03	0.99411	3.14988	180.475	0.98826
33.04	-9.93405E-01	-8.88345E-03	0.99344	3.15053	180.512	0.98693
33.06	-9.92803E-01	-9.59671E-03	0.99285	3.15126	180.554	0.98575
33.08	-9.92280E-01	-1.03677E-02	0.99233	3.15204	180.599	0.98473
33.10	-9.91841E-01	-1.11873E-02	0.99190	3.15287	180.646	0.98387
33.12	-9.91490E-01	-1.20471E-02	0.99156	3.15374	180.696	0.98320
33.14	-9.91231E-01	-1.29372E-02	0.99132	3.15464	180.748	0.98271
33.16	-9.91067E-01	-1.38479E-02	0.99116	3.15556	180.801	0.98241
33.18	-9.91000E-01	-1.47698E-02	0.99111	3.15650	180.854	0.98230
33.20	-9.91028E-01	-1.56922E-02	0.99115	3.15743	180.907	0.98238
33.22	-9.91153E-01	-1.66058E-02	0.99129	3.15835	180.960	0.98266
33.24	-9.91372E-01	-1.75001E-02	0.99153	3.15924	181.011	0.98312
33.26	-9.91683E-01	-1.83661E-02	0.99185	3.16011	181.061	0.98377
33.28	-9.92082E-01	-1.91939E-02	0.99227	3.16094	181.108	0.98460
33.30	-9.92565E-01	-1.99752E-02	0.99277	3.16171	181.153	0.98558
33.32	-9.93127E-01	-2.07010E-02	0.99334	3.16243	181.194	0.98673
33.34	-9.93761E-01	-2.13644E-02	0.99399	3.16309	181.232	0.98802
33.36	-9.94459E-01	-2.19576E-02	0.99470	3.16367	181.265	0.98943
33.38	-9.95216E-01	-2.24749E-02	0.99547	3.16417	181.294	0.99096
33.40	-9.96022E-01	-2.29105E-02	0.99629	3.16459	181.318	0.99258
33.42	-9.96868E-01	-2.32598E-02	0.99714	3.16492	181.337	0.99429
33.44	-9.97746E-01	-2.35193E-02	0.99802	3.16516	181.350	0.99605
33.46	-9.98646E-01	-2.36866E-02	0.99893	3.16531	181.359	0.99785
33.48	-9.99558E-01	-2.37596E-02	0.99984	3.16536	181.362	0.99968
33.50	-1.00047E 00	-2.37380E-02	1.00075	3.16532	181.359	1.00151
33.52	-1.00138E 00	-2.36220E-02	1.00166	3.16518	181.351	1.00332
33.54	-1.00227E 00	-2.34130E-02	1.00254	3.16495	181.338	1.00509
33.56	-1.00313E 00	-2.31137E-02	1.00340	3.16463	181.320	1.00681
33.58	-1.00396E 00	-2.27270E-02	1.00422	3.16423	181.297	1.00845
33.60	-1.00474E 00	-2.22571E-02	1.00499	3.16374	181.269	1.01001
33.62	-1.00547E 00	-2.17098E-02	1.00571	3.16318	181.237	1.01145
33.64	-1.00614E 00	-2.10904E-02	1.00637	3.16255	181.201	1.01277
33.66	-1.00675E 00	-2.04058E-02	1.00695	3.16186	181.161	1.01395
33.68	-1.00728E 00	-1.96638E-02	1.00747	3.16111	181.118	1.01499
33.70	-1.00772E 00	-1.88715E-02	1.00790	3.16032	181.073	1.01587
33.72	-1.00809E 00	-1.80382E-02	1.00825	3.15948	181.025	1.01657
33.74	-1.00837E 00	-1.71727E-02	1.00851	3.15862	180.976	1.01710
33.76	-1.00856E 00	-1.62842E-02	1.00869	3.15774	180.925	1.01745
33.78	-1.00865E 00	-1.53818E-02	1.00877	3.15684	180.874	1.01761
33.80	-1.00865E 00	-1.44759E-02	1.00876	3.15594	180.822	1.01759
33.82	-1.00856E 00	-1.35753E-02	1.00866	3.15505	180.771	1.01739
33.84	-1.00838E 00	-1.26899E-02	1.00846	3.15418	180.721	1.01700
33.86	-1.00811E 00	-1.18293E-02	1.00818	3.15333	180.672	1.01643
33.88	-1.00776E 00	-1.10022E-02	1.00782	3.15251	180.626	1.01569
33.90	-1.00732E 00	-1.02176E-02	1.00737	3.15174	180.581	1.01479
33.92	-1.00680E 00	-9.48315E-03	1.00684	3.15101	180.540	1.01374
33.94	-1.00621E 00	-8.80683E-03	1.00625	3.15034	180.501	1.01254
33.96	-1.00556E 00	-8.19614E-03	1.00559	3.14974	180.467	1.01122
33.98	-1.00485E 00	-7.65597E-03	1.00488	3.14921	180.437	1.00978
34.00	-1.00409E 00	-7.19335E-03	1.00411	3.14876	180.410	1.00824

ka	Re $\underline{G}$	Im $\underline{G}$	G	Φ_{RAD}	Φ_{DEG}	$\sigma/\pi a^2$
34.00	-1.00409E 00	-7.19335E-03	1.00411	3.14876	180.410	1.00824
34.02	-1.00328E 00	-6.81225E-03	1.00331	3.14838	180.389	1.00663
34.04	-1.00245E 00	-6.51653E-03	1.00247	3.14809	180.372	1.00494
34.06	-1.00159E 00	-6.30917E-03	1.00161	3.14789	180.361	1.00322
34.08	-1.00071E 00	-6.19167E-03	1.00073	3.14778	180.354	1.00147
34.10	-9.99833E-01	-6.16533E-03	0.99985	3.14776	180.353	0.99970
34.12	-9.98956E-01	-6.23007E-03	0.99898	3.14783	180.357	0.99795
34.14	-9.98093E-01	-6.38494E-03	0.99811	3.14799	180.367	0.99623
34.16	-9.97253E-01	-6.62785E-03	0.99727	3.14824	180.381	0.99456
34.18	-9.96444E-01	-6.95595E-03	0.99647	3.14857	180.400	0.99295
34.20	-9.95675E-01	-7.36526E-03	0.99570	3.14899	180.424	0.99142
34.22	-9.94954E-01	-7.85132E-03	0.99499	3.14948	180.452	0.99000
34.24	-9.94289E-01	-8.40880E-03	0.99432	3.15005	180.485	0.98868
34.26	-9.93687E-01	-9.03048E-03	0.99373	3.15068	180.521	0.98750
34.28	-9.93154E-01	-9.71063E-03	0.99320	3.15137	180.560	0.98645
34.30	-9.92696E-01	-1.04416E-02	0.99275	3.15211	180.603	0.98555
34.32	-9.92317E-01	-1.12144E-02	0.99238	3.15289	180.647	0.98482
34.34	-9.92022E-01	-1.20218E-02	0.99209	3.15371	180.694	0.98425
34.36	-9.91812E-01	-1.28540E-02	0.99190	3.15455	180.743	0.98386
34.38	-9.91690E-01	-1.37023E-02	0.99179	3.15541	180.792	0.98364
34.40	-9.91658E-01	-1.45577E-02	0.99177	3.15627	180.841	0.98360
34.42	-9.91716E-01	-1.54106E-02	0.99184	3.15713	180.890	0.98374
34.44	-9.91861E-01	-1.62517E-02	0.99199	3.15798	180.939	0.98405
34.46	-9.92094E-01	-1.70724E-02	0.99224	3.15880	180.986	0.98454
34.48	-9.92411E-01	-1.78638E-02	0.99257	3.15959	181.031	0.98520
34.50	-9.92808E-01	-1.86166E-02	0.99298	3.16034	181.074	0.98601
34.52	-9.93281E-01	-1.93236E-02	0.99347	3.16104	181.115	0.98698
34.54	-9.93826E-01	-1.99774E-02	0.99403	3.16169	181.152	0.98809
34.56	-9.94435E-01	-2.05706E-02	0.99465	3.16228	181.185	0.98932
34.58	-9.95101E-01	-2.10968E-02	0.99532	3.16279	181.215	0.99067
34.60	-9.95819E-01	-2.15506E-02	0.99605	3.16323	181.240	0.99212
34.62	-9.96580E-01	-2.19274E-02	0.99682	3.16359	181.260	0.99365
34.64	-9.97375E-01	-2.22228E-02	0.99762	3.16387	181.276	0.99525
34.66	-9.98197E-01	-2.24345E-02	0.99845	3.16406	181.288	0.99690
34.68	-9.99036E-01	-2.25598E-02	0.99929	3.16417	181.294	0.99858
34.70	-9.99883E-01	-2.25972E-02	1.00014	3.16419	181.295	1.00028
34.72	-1.00073E 00	-2.25471E-02	1.00098	3.16412	181.291	1.00197
34.74	-1.00157E 00	-2.24101E-02	1.00182	3.16396	181.282	1.00364
34.76	-1.00238E 00	-2.21874E-02	1.00263	3.16372	181.268	1.00526
34.78	-1.00317E 00	-2.18815E-02	1.00341	3.16340	181.250	1.00684
34.80	-1.00393E 00	-2.14963E-02	1.00416	3.16300	181.227	1.00833
34.82	-1.00464E 00	-2.10354E-02	1.00486	3.16253	181.200	1.00974
34.84	-1.00530E 00	-2.05044E-02	1.00551	3.16199	181.168	1.01104
34.86	-1.00590E 00	-1.99089E-02	1.00609	3.16138	181.134	1.01223
34.88	-1.00643E 00	-1.92550E-02	1.00662	3.16072	181.096	1.01328
34.90	-1.00690E 00	-1.85501E-02	1.00707	3.16001	181.055	1.01419
34.92	-1.00729E 00	-1.78017E-02	1.00745	3.15926	181.012	1.01495
34.94	-1.00760E 00	-1.70180E-02	1.00774	3.15848	180.968	1.01555
34.96	-1.00783E 00	-1.62072E-02	1.00796	3.15767	180.921	1.01599
34.98	-1.00798E 00	-1.53778E-02	1.00809	3.15685	180.874	1.01625
35.00	-1.00804E 00	-1.45388E-02	1.00814	3.15601	180.826	1.01635

ka	Re G	Im G	G	Φ RAD	Φ DEG	σ/πa²
35.00	-1.00804E 00	-1.45388E-02	1.00814	3.15601	180.826	1.01635
35.02	-1.00801E 00	-1.36995E-02	1.00810	3.15518	180.779	1.01627
35.04	-1.00790E 00	-1.28681E-02	1.00798	3.15436	180.731	1.01602
35.06	-1.00770E 00	-1.20537E-02	1.00777	3.15355	180.685	1.01560
35.08	-1.00742E 00	-1.12650E-02	1.00748	3.15277	180.641	1.01502
35.10	-1.00706E 00	-1.05102E-02	1.00712	3.15203	180.598	1.01429
35.12	-1.00663E 00	-9.79734E-03	1.00668	3.15133	180.558	1.01340
35.14	-1.00613E 00	-9.13384E-03	1.00617	3.15067	180.520	1.01238
35.16	-1.00556E 00	-8.52623E-03	1.00560	3.15007	180.486	1.01123
35.18	-1.00494E 00	-7.98130E-03	1.00497	3.14953	180.455	1.00997
35.20	-1.00426E 00	-7.50395E-03	1.00429	3.14906	180.428	1.00860
35.22	-1.00354E 00	-7.10002E-03	1.00357	3.14867	180.405	1.00715
35.24	-1.00279E 00	-6.77282E-03	1.00281	3.14835	180.387	1.00563
35.26	-1.00200E 00	-6.52569E-03	1.00202	3.14811	180.373	1.00405
35.28	-1.00120E 00	-6.36150E-03	1.00122	3.14795	180.364	1.00244
35.30	-1.00038E 00	-6.28093E-03	1.00040	3.14787	180.360	1.00081
35.32	-9.99568E-01	-6.28504E-03	0.99959	3.14788	180.360	0.99918
35.34	-9.98758E-01	-6.37338E-03	0.99878	3.14797	180.366	0.99756
35.36	-9.97963E-01	-6.54462E-03	0.99798	3.14815	180.376	0.99597
35.38	-9.97192E-01	-6.79700E-03	0.99722	3.14841	180.391	0.99444
35.40	-9.96453E-01	-7.12717E-03	0.99648	3.14875	180.410	0.99297
35.42	-9.95754E-01	-7.53154E-03	0.99578	3.14916	180.433	0.99158
35.44	-9.95102E-01	-8.00523E-03	0.99513	3.14964	180.461	0.99029
35.46	-9.94504E-01	-8.54317E-03	0.99454	3.15018	180.492	0.98911
35.48	-9.93966E-01	-9.13928E-03	0.99401	3.15079	180.527	0.98805
35.50	-9.93494E-01	-9.78698E-03	0.99354	3.15144	180.564	0.98713
35.52	-9.93093E-01	-1.04789E-02	0.99315	3.15214	180.605	0.98634
35.54	-9.92767E-01	-1.12079E-02	0.99283	3.15288	180.647	0.98571
35.56	-9.92519E-01	-1.19656E-02	0.99259	3.15365	180.691	0.98524
35.58	-9.92352E-01	-1.27440E-02	0.99243	3.15443	180.736	0.98492
35.60	-9.92267E-01	-1.35346E-02	0.99236	3.15523	180.781	0.98478
35.62	-9.92265E-01	-1.43284E-02	0.99237	3.15603	180.827	0.98480
35.64	-9.92346E-01	-1.51174E-02	0.99246	3.15683	180.873	0.98498
35.66	-9.92509E-01	-1.58928E-02	0.99264	3.15760	180.917	0.98533
35.68	-9.92751E-01	-1.66463E-02	0.99289	3.15836	180.961	0.98583
35.70	-9.93071E-01	-1.73696E-02	0.99322	3.15908	181.002	0.98649
35.72	-9.93463E-01	-1.80554E-02	0.99363	3.15976	181.041	0.98729
35.74	-9.93925E-01	-1.86956E-02	0.99410	3.16040	181.078	0.98824
35.76	-9.94451E-01	-1.92843E-02	0.99464	3.16098	181.111	0.98931
35.78	-9.95035E-01	-1.98147E-02	0.99523	3.16150	181.141	0.99049
35.80	-9.95670E-01	-2.02814E-02	0.99588	3.16196	181.167	0.99177
35.82	-9.96351E-01	-2.06791E-02	0.99657	3.16234	181.189	0.99314
35.84	-9.97069E-01	-2.10042E-02	0.99729	3.16266	181.207	0.99459
35.86	-9.97817E-01	-2.12529E-02	0.99804	3.16289	181.220	0.99609
35.88	-9.98585E-01	-2.14228E-02	0.99882	3.16304	181.229	0.99763
35.90	-9.99368E-01	-2.15119E-02	0.99960	3.16311	181.233	0.99920
35.92	-1.00015E 00	-2.15196E-02	1.00039	3.16311	181.233	1.00077
35.94	-1.00094E 00	-2.14461E-02	1.00117	3.16302	181.227	1.00234
35.96	-1.00171E 00	-2.12921E-02	1.00194	3.16285	181.218	1.00388
35.98	-1.00246E 00	-2.10595E-02	1.00268	3.16260	181.203	1.00537
36.00	-1.00319E 00	-2.07505E-02	1.00340	3.16227	181.185	1.00681

Ka	Re G	Im G	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
36.00	-1.00319E 00	-2.07505E-02	1.00340	3.16227	181.185	1.00681
36.02	-1.00387E 00	-2.03690E-02	1.00408	3.16188	181.162	1.00818
36.04	-1.00452E 00	-1.99187E-02	1.00471	3.16142	181.136	1.00945
36.06	-1.00511E 00	-1.94049E-02	1.00530	3.16090	181.106	1.01063
36.08	-1.00565E 00	-1.88332E-02	1.00583	3.16032	181.073	1.01169
36.10	-1.00613E 00	-1.82094E-02	1.00629	3.15969	181.037	1.01262
36.12	-1.00654E 00	-1.75406E-02	1.00669	3.15902	180.998	1.01342
36.14	-1.00688E 00	-1.68337E-02	1.00702	3.15831	180.958	1.01408
36.16	-1.00714E 00	-1.60964E-02	1.00727	3.15757	180.916	1.01459
36.18	-1.00733E 00	-1.53366E-02	1.00745	3.15682	180.872	1.01495
36.20	-1.00744E 00	-1.45624E-02	1.00754	3.15605	180.828	1.01514
36.22	-1.00747E 00	-1.37821E-02	1.00756	3.15527	180.784	1.01518
36.24	-1.00741E 00	-1.30036E-02	1.00750	3.15450	180.740	1.01505
36.26	-1.00728E 00	-1.22359E-02	1.00736	3.15374	180.696	1.01477
36.28	-1.00708E 00	-1.14864E-02	1.00714	3.15300	180.653	1.01433
36.30	-1.00679E 00	-1.07632E-02	1.00685	3.15228	180.613	1.01375
36.32	-1.00644E 00	-1.00739E-02	1.00649	3.15160	180.573	1.01302
36.34	-1.00601E 00	-9.42597E-03	1.00606	3.15096	180.537	1.01215
36.36	-1.00553E 00	-8.82580E-03	1.00557	3.15037	180.503	1.01116
36.38	-1.00498E 00	-8.27967E-03	1.00502	3.14983	180.472	1.01006
36.40	-1.00439E 00	-7.79370E-03	1.00442	3.14935	180.445	1.00885
36.42	-1.00374E 00	-7.37233E-03	1.00377	3.14894	180.421	1.00755
36.44	-1.00306E 00	-7.02021E-03	1.00309	3.14859	180.401	1.00618
36.46	-1.00235E 00	-6.74009E-03	1.00237	3.14832	180.385	1.00475
36.48	-1.00162E 00	-6.53553E-03	1.00164	3.14812	180.374	1.00328
36.50	-1.00086E 00	-6.40833E-03	1.00088	3.14800	180.367	1.00177
36.52	-1.00011E 00	-6.35933E-03	1.00013	3.14795	180.364	1.00025
36.54	-9.99348E-01	-6.38909E-03	0.99937	3.14799	180.366	0.99874
36.56	-9.98599E-01	-6.49633E-03	0.99862	3.14810	180.373	0.99724
36.58	-9.97867E-01	-6.68047E-03	0.99789	3.14829	180.384	0.99578
36.60	-9.97159E-01	-6.93937E-03	0.99718	3.14855	180.399	0.99438
36.62	-9.96484E-01	-7.26870E-03	0.99651	3.14889	180.418	0.99303
36.64	-9.95848E-01	-7.66628E-03	0.99588	3.14929	180.441	0.99177
36.66	-9.95258E-01	-8.12682E-03	0.99529	3.14976	180.468	0.99060
36.68	-9.94719E-01	-8.64505E-03	0.99476	3.15028	180.498	0.98954
36.70	-9.94239E-01	-9.21540E-03	0.99428	3.15086	180.531	0.98860
36.72	-9.93822E-01	-9.83170E-03	0.99387	3.15149	180.567	0.98778
36.74	-9.93471E-01	-1.04870E-02	0.99353	3.15215	180.605	0.98709
36.76	-9.93192E-01	-1.11743E-02	0.99325	3.15284	180.645	0.98655
36.78	-9.92985E-01	-1.18853E-02	0.99306	3.15356	180.686	0.98616
36.80	-9.92855E-01	-1.26136E-02	0.99294	3.15430	180.728	0.98592
36.82	-9.92801E-01	-1.33502E-02	0.99289	3.15504	180.770	0.98583
36.84	-9.92824E-01	-1.40876E-02	0.99292	3.15578	180.813	0.98590
36.86	-9.92924E-01	-1.48178E-02	0.99304	3.15651	180.855	0.98612
36.88	-9.93100E-01	-1.55328E-02	0.99322	3.15723	180.896	0.98649
36.90	-9.93349E-01	-1.62248E-02	0.99348	3.15792	180.936	0.98701
36.92	-9.93669E-01	-1.68866E-02	0.99381	3.15859	180.974	0.98766
36.94	-9.94055E-01	-1.75112E-02	0.99421	3.15921	181.009	0.98845
36.96	-9.94505E-01	-1.80916E-02	0.99467	3.15978	181.042	0.98937
36.98	-9.95012E-01	-1.86222E-02	0.99519	3.16031	181.072	0.99040
37.00	-9.95571E-01	-1.90964E-02	0.99575	3.16077	181.099	0.99153

ka	Re G	Im G	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
37.00	-9.95571E-01	-1.90964E-02	0.99575	3.16077	181.099	0.99153
37.02	-9.96176E-01	-1.95098E-02	0.99637	3.16117	181.122	0.99275
37.04	-9.96821E-01	-1.98580E-02	0.99702	3.16151	181.141	0.99405
37.06	-9.97498E-01	-2.01377E-02	0.99770	3.16178	181.157	0.99541
37.08	-9.98201E-01	-2.03453E-02	0.99841	3.16197	181.168	0.99682
37.10	-9.98921E-01	-2.04787E-02	0.99913	3.16209	181.174	0.99826
37.12	-9.99651E-01	-2.05373E-02	0.99986	3.16213	181.177	0.99972
37.14	-1.00038E 00	-2.05196E-02	1.00059	3.16210	181.175	1.00119
37.16	-1.00111E 00	-2.04269E-02	1.00132	3.16199	181.169	1.00264
37.18	-1.00182E 00	-2.02595E-02	1.00203	3.16181	181.159	1.00406
37.20	-1.00251E 00	-2.00199E-02	1.00271	3.16156	181.144	1.00543
37.22	-1.00318E 00	-1.97102E-02	1.00337	3.16124	181.126	1.00675
37.24	-1.00380E 00	-1.93343E-02	1.00399	3.16085	181.103	1.00799
37.26	-1.00439E 00	-1.88958E-02	1.00457	3.16040	181.078	1.00915
37.28	-1.00493E 00	-1.84000E-02	1.00509	3.15990	181.049	1.01021
37.30	-1.00541E 00	-1.78515E-02	1.00557	3.15935	181.017	1.01116
37.32	-1.00583E 00	-1.72570E-02	1.00598	3.15875	180.983	1.01199
37.34	-1.00619E 00	-1.66230E-02	1.00633	3.15811	180.946	1.01270
37.36	-1.00649E 00	-1.59551E-02	1.00661	3.15744	180.908	1.01327
37.38	-1.00671E 00	-1.52618E-02	1.00682	3.15675	180.869	1.01369
37.40	-1.00686E 00	-1.45497E-02	1.00696	3.15604	180.828	1.01398
37.42	-1.00694E 00	-1.38268E-02	1.00703	3.15532	180.787	1.01411
37.44	-1.00694E 00	-1.31006E-02	1.00702	3.15460	180.745	1.01410
37.46	-1.00687E 00	-1.23785E-02	1.00694	3.15389	180.704	1.01394
37.48	-1.00672E 00	-1.16686E-02	1.00679	3.15318	180.664	1.01363
37.50	-1.00651E 00	-1.09786E-02	1.00657	3.15250	180.625	1.01318
37.52	-1.00622E 00	-1.03149E-02	1.00627	3.15184	180.587	1.01259
37.54	-1.00587E 00	-9.68542E-03	1.00592	3.15122	180.552	1.01187
37.56	-1.00546E 00	-9.09611E-03	1.00550	3.15064	180.518	1.01102
37.58	-1.00499E 00	-8.55302E-03	1.00502	3.15010	180.488	1.01007
37.60	-1.00446E 00	-8.06248E-03	1.00449	3.14962	180.460	1.00901
37.62	-1.00389E 00	-7.62873E-03	1.00392	3.14919	180.435	1.00786
37.64	-1.00328E 00	-7.25678E-03	1.00331	3.14883	180.414	1.00663
37.66	-1.00264E 00	-6.95020E-03	1.00266	3.14852	180.397	1.00533
37.68	-1.00197E 00	-6.71182E-03	1.00199	3.14829	180.384	1.00399
37.70	-1.00128E 00	-6.54429E-03	1.00130	3.14813	180.374	1.00260
37.72	-1.00058E 00	-6.44904E-03	1.00060	3.14804	180.369	1.00120
37.74	-9.99871E-01	-6.42682E-03	0.99989	3.14802	180.368	0.99978
37.76	-9.99167E-01	-6.47757E-03	0.99919	3.14808	180.371	0.99838
37.78	-9.98475E-01	-6.60071E-03	0.99850	3.14820	180.379	0.99699
37.80	-9.97799E-01	-6.79457E-03	0.99782	3.14840	180.390	0.99565
37.82	-9.97150E-01	-7.05649E-03	0.99717	3.14867	180.405	0.99436
37.84	-9.96532E-01	-7.38393E-03	0.99656	3.14900	180.425	0.99313
37.86	-9.95953E-01	-7.77309E-03	0.99598	3.14940	180.447	0.99198
37.88	-9.95418E-01	-8.21916E-03	0.99545	3.14985	180.473	0.99092
37.90	-9.94934E-01	-8.71775E-03	0.99497	3.15035	180.502	0.98997
37.92	-9.94505E-01	-9.26289E-03	0.99455	3.15091	180.534	0.98913
37.94	-9.94136E-01	-9.84891E-03	0.99418	3.15150	180.568	0.98840
37.96	-9.93830E-01	-1.04690E-02	0.99388	3.15213	180.604	0.98781
37.98	-9.93591E-01	-1.11167E-02	0.99365	3.15278	180.641	0.98735
38.00	-9.93422E-01	-1.17845E-02	0.99349	3.15345	180.680	0.98703

Ka	Re G	Im G	G	Φ_{RAD}	Φ_{DEG}	$\sigma/\pi a^2$
38.00	-9.93422E-01	-1.17845E-02	0.99349	3.15345	180.680	0.98703
38.02	-9.93322E-01	-1.24659E-02	0.99340	3.15414	180.719	0.98684
38.04	-9.93295E-01	-1.31526E-02	0.99338	3.15483	180.759	0.98681
38.06	-9.93340E-01	-1.38379E-02	0.99344	3.15552	180.798	0.98692
38.08	-9.93456E-01	-1.45140E-02	0.99356	3.15620	180.837	0.98716
38.10	-9.93641E-01	-1.51736E-02	0.99376	3.15686	180.875	0.98755
38.12	-9.93894E-01	-1.58100E-02	0.99402	3.15750	180.911	0.98808
38.14	-9.94212E-01	-1.64159E-02	0.99435	3.15810	180.946	0.98873
38.16	-9.94591E-01	-1.69851E-02	0.99474	3.15867	180.978	0.98950
38.18	-9.95027E-01	-1.75113E-02	0.99518	3.15919	181.008	0.99039
38.20	-9.95515E-01	-1.79891E-02	0.99568	3.15966	181.035	0.99137
38.22	-9.96050E-01	-1.84134E-02	0.99622	3.16008	181.059	0.99246
38.24	-9.96626E-01	-1.87796E-02	0.99680	3.16043	181.080	0.99362
38.26	-9.97237E-01	-1.90839E-02	0.99742	3.16073	181.096	0.99485
38.28	-9.97876E-01	-1.93233E-02	0.99806	3.16095	181.109	0.99613
38.30	-9.98536E-01	-1.94952E-02	0.99873	3.16111	181.118	0.99745
38.32	-9.99211E-01	-1.95974E-02	0.99940	3.16120	181.124	0.99881
38.34	-9.99892E-01	-1.96294E-02	1.00008	3.16122	181.125	1.00017
38.36	-1.00057E 00	-1.95910E-02	1.00076	3.16117	181.122	1.00153
38.38	-1.00125E 00	-1.94824E-02	1.00144	3.16105	181.115	1.00287
38.40	-1.00190E 00	-1.93052E-02	1.00209	3.16086	181.104	1.00418
38.42	-1.00254E 00	-1.90610E-02	1.00272	3.16060	181.089	1.00545
38.44	-1.00315E 00	-1.87527E-02	1.00332	3.16028	181.071	1.00666
38.46	-1.00372E 00	-1.83836E-02	1.00389	3.15991	181.049	1.00779
38.48	-1.00425E 00	-1.79579E-02	1.00441	3.15947	181.024	1.00884
38.50	-1.00474E 00	-1.74797E-02	1.00489	3.15899	180.997	1.00980
38.52	-1.00517E 00	-1.69550E-02	1.00531	3.15846	180.966	1.01065
38.54	-1.00555E 00	-1.63885E-02	1.00568	3.15789	180.934	1.01139
38.56	-1.00586E 00	-1.57870E-02	1.00599	3.15729	180.899	1.01201
38.58	-1.00612E 00	-1.51569E-02	1.00623	3.15666	180.863	1.01250
38.60	-1.00630E 00	-1.45045E-02	1.00641	3.15601	180.826	1.01286
38.62	-1.00642E 00	-1.38371E-02	1.00652	3.15534	180.788	1.01308
38.64	-1.00647E 00	-1.31616E-02	1.00656	3.15467	180.749	1.01316
38.66	-1.00645E 00	-1.24856E-02	1.00653	3.15400	180.711	1.01310
38.68	-1.00637E 00	-1.18156E-02	1.00643	3.15333	180.673	1.01291
38.70	-1.00621E 00	-1.11590E-02	1.00627	3.15268	180.635	1.01258
38.72	-1.00599E 00	-1.05227E-02	1.00604	3.15205	180.599	1.01212
38.74	-1.00570E 00	-9.91370E-03	1.00575	3.15145	180.565	1.01153
38.76	-1.00536E 00	-9.33812E-03	1.00540	3.15088	180.532	1.01083
38.78	-1.00495E 00	-8.80165E-03	1.00499	3.15035	180.502	1.01001
38.80	-1.00450E 00	-8.31053E-03	1.00453	3.14987	180.474	1.00909
38.82	-1.00400E 00	-7.86920E-03	1.00403	3.14943	180.449	1.00807
38.84	-1.00345E 00	-7.48285E-03	1.00348	3.14905	180.427	1.00697
38.86	-1.00287E 00	-7.15442E-03	1.00290	3.14873	180.409	1.00581
38.88	-1.00227E 00	-6.88840E-03	1.00229	3.14847	180.394	1.00458
38.90	-1.00163E 00	-6.68647E-03	1.00166	3.14827	180.382	1.00332
38.92	-1.00099E 00	-6.55139E-03	1.00101	3.14814	180.375	1.00202
38.94	-1.00033E 00	-6.48357E-03	1.00035	3.14807	180.371	1.00071
38.96	-9.99673E-01	-6.48430E-03	0.99969	3.14808	180.372	0.99939
38.98	-9.99020E-01	-6.55239E-03	0.99904	3.14815	180.376	0.99808
39.00	-9.98378E-01	-6.68782E-03	0.99840	3.14829	180.384	0.99680

ka	Re G	Im G	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
39.00	-9.98378E-01	-6.68782E-03	0.99840	3.14829	180.384	0.99680
39.02	-9.97756E-01	-6.88821E-03	0.99778	3.14850	180.396	0.99556
39.04	-9.97159E-01	-7.15201E-03	0.99718	3.14876	180.411	0.99438
39.06	-9.96593E-01	-7.47542E-03	0.99662	3.14909	180.430	0.99325
39.08	-9.96066E-01	-7.85535E-03	0.99610	3.14948	180.452	0.99221
39.10	-9.95581E-01	-8.28679E-03	0.99562	3.14992	180.477	0.99125
39.12	-9.95145E-01	-8.76549E-03	0.99518	3.15040	180.505	0.99039
39.14	-9.94763E-01	-9.28631E-03	0.99481	3.15093	180.535	0.98964
39.16	-9.94436E-01	-9.84294E-03	0.99449	3.15149	180.567	0.98900
39.18	-9.94171E-01	-1.04302E-02	0.99423	3.15208	180.601	0.98848
39.20	-9.93968E-01	-1.10402E-02	0.99403	3.15270	180.636	0.98809
39.22	-9.93830E-01	-1.16675E-02	0.99390	3.15333	180.673	0.98783
39.24	-9.93758E-01	-1.23048E-02	0.99383	3.15397	180.709	0.98771
39.26	-9.93753E-01	-1.29452E-02	0.99384	3.15462	180.746	0.98771
39.28	-9.93816E-01	-1.35823E-02	0.99391	3.15526	180.783	0.98785
39.30	-9.93944E-01	-1.42089E-02	0.99405	3.15589	180.819	0.98813
39.32	-9.94137E-01	-1.48179E-02	0.99425	3.15650	180.854	0.98853
39.34	-9.94392E-01	-1.54029E-02	0.99451	3.15708	180.887	0.98905
39.36	-9.94706E-01	-1.59580E-02	0.99483	3.15763	180.919	0.98969
39.38	-9.95076E-01	-1.64769E-02	0.99521	3.15815	180.949	0.99045
39.40	-9.95499E-01	-1.69542E-02	0.99564	3.15862	180.976	0.99130
39.42	-9.95968E-01	-1.73847E-02	0.99612	3.15905	181.000	0.99225
39.44	-9.96479E-01	-1.77643E-02	0.99664	3.15942	181.021	0.99329
39.46	-9.97027E-01	-1.80881E-02	0.99719	3.15973	181.039	0.99439
39.48	-9.97605E-01	-1.83538E-02	0.99777	3.15999	181.054	0.99555
39.50	-9.98208E-01	-1.85577E-02	0.99838	3.16018	181.065	0.99676
39.52	-9.98829E-01	-1.86978E-02	0.99900	3.16031	181.072	0.99801
39.54	-9.99460E-01	-1.87732E-02	0.99964	3.16037	181.076	0.99927
39.56	-1.00010E 00	-1.87828E-02	1.00027	3.16037	181.076	1.00055
39.58	-1.00073E 00	-1.87269E-02	1.00091	3.16030	181.072	1.00181
39.60	-1.00135E 00	-1.86058E-02	1.00153	3.16017	181.064	1.00306
39.62	-1.00196E 00	-1.84205E-02	1.00213	3.15997	181.053	1.00427
39.64	-1.00255E 00	-1.81740E-02	1.00271	3.15972	181.039	1.00543
39.66	-1.00311E 00	-1.78687E-02	1.00327	3.15940	181.021	1.00654
39.68	-1.00363E 00	-1.75077E-02	1.00378	3.15904	180.999	1.00758
39.70	-1.00411E 00	-1.70948E-02	1.00426	3.15862	180.975	1.00853
39.72	-1.00455E 00	-1.66353E-02	1.00469	3.15815	180.949	1.00940
39.74	-1.00494E 00	-1.61330E-02	1.00507	3.15764	180.920	1.01016
39.76	-1.00527E 00	-1.55942E-02	1.00539	3.15710	180.889	1.01082
39.78	-1.00555E 00	-1.50237E-02	1.00566	3.15653	180.856	1.01136
39.80	-1.00577E 00	-1.44285E-02	1.00587	3.15594	180.822	1.01178
39.82	-1.00592E 00	-1.38152E-02	1.00602	3.15533	180.787	1.01207
39.84	-1.00601E 00	-1.31890E-02	1.00610	3.15470	180.751	1.01224
39.86	-1.00604E 00	-1.25581E-02	1.00612	3.15407	180.715	1.01228
39.88	-1.00600E 00	-1.19282E-02	1.00607	3.15345	180.679	1.01219
39.90	-1.00590E 00	-1.13060E-02	1.00597	3.15283	180.644	1.01197
39.92	-1.00574E 00	-1.06988E-02	1.00579	3.15223	180.609	1.01162
39.94	-1.00551E 00	-1.01119E-02	1.00556	3.15165	180.576	1.01116
39.96	-1.00523E 00	-9.55228E-03	1.00527	3.15109	180.544	1.01057
39.98	-1.00489E 00	-9.02577E-03	1.00493	3.15057	180.515	1.00988
40.00	-1.00450E 00	-8.53722E-03	1.00453	3.15009	180.487	1.00909

ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
40.00	-1.00450E 00	-8.53722E-03	1.00453	3.15009	180.487	1.00909
40.02	-1.00406E 00	-8.09252E-03	1.00409	3.14965	180.462	1.00820
40.04	-1.00358E 00	-7.69592E-03	1.00361	3.14926	180.439	1.00723
40.06	-1.00306E 00	-7.35132E-03	1.00309	3.14892	180.420	1.00618
40.08	-1.00251E 00	-7.06231E-03	1.00254	3.14864	180.404	1.00508
40.10	-1.00194E 00	-6.83191E-03	1.00196	3.14841	180.391	1.00392
40.12	-1.00134E 00	-6.66217E-03	1.00136	3.14825	180.381	1.00273
40.14	-1.00073E 00	-6.55502E-03	1.00076	3.14814	180.375	1.00151
40.16	-1.00012E 00	-6.51129E-03	1.00014	3.14810	180.373	1.00028
40.18	-9.99507E-01	-6.53083E-03	0.99953	3.14813	180.374	0.99906
40.20	-9.98900E-01	-6.61376E-03	0.99892	3.14821	180.379	0.99784
40.22	-9.98306E-01	-6.75863E-03	0.99833	3.14836	180.388	0.99666
40.24	-9.97731E-01	-6.96414E-03	0.99776	3.14857	180.400	0.99552
40.26	-9.97182E-01	-7.22749E-03	0.99721	3.14884	180.415	0.99442
40.28	-9.96665E-01	-7.54597E-03	0.99669	3.14916	180.434	0.99340
40.30	-9.96184E-01	-7.91527E-03	0.99622	3.14954	180.455	0.99245
40.32	-9.95745E-01	-8.33220E-03	0.99578	3.14996	180.479	0.99158
40.34	-9.95353E-01	-8.79135E-03	0.99539	3.15042	180.506	0.99080
40.36	-9.95011E-01	-9.28827E-03	0.99505	3.15093	180.535	0.99013
40.38	-9.94723E-01	-9.81705E-03	0.99477	3.15146	180.565	0.98957
40.40	-9.94493E-01	-1.03723E-02	0.99455	3.15202	180.598	0.98912
40.42	-9.94322E-01	-1.09475E-02	0.99438	3.15260	180.631	0.98880
40.44	-9.94211E-01	-1.15367E-02	0.99428	3.15320	180.665	0.98859
40.46	-9.94163E-01	-1.21335E-02	0.99424	3.15380	180.699	0.98851
40.48	-9.94178E-01	-1.27313E-02	0.99426	3.15440	180.734	0.98855
40.50	-9.94254E-01	-1.33235E-02	0.99434	3.15499	180.768	0.98872
40.52	-9.94393E-01	-1.39042E-02	0.99449	3.15557	180.801	0.98901
40.54	-9.94590E-01	-1.44668E-02	0.99470	3.15614	180.833	0.98942
40.56	-9.94845E-01	-1.50053E-02	0.99496	3.15667	180.864	0.98994
40.58	-9.95155E-01	-1.55139E-02	0.99528	3.15718	180.893	0.99057
40.60	-9.95516E-01	-1.59872E-02	0.99564	3.15765	180.920	0.99131
40.62	-9.95924E-01	-1.64203E-02	0.99606	3.15808	180.945	0.99213
40.64	-9.96375E-01	-1.68085E-02	0.99652	3.15846	180.966	0.99304
40.66	-9.96863E-01	-1.71472E-02	0.99701	3.15879	180.985	0.99403
40.68	-9.97384E-01	-1.74338E-02	0.99754	3.15907	181.001	0.99508
40.70	-9.97932E-01	-1.76645E-02	0.99809	3.15929	181.014	0.99618
40.72	-9.98500E-01	-1.78373E-02	0.99866	3.15945	181.023	0.99732
40.74	-9.99083E-01	-1.79501E-02	0.99924	3.15956	181.029	0.99849
40.76	-9.99675E-01	-1.80021E-02	0.99984	3.15960	181.032	0.99967
40.78	-1.00027E 00	-1.79925E-02	1.00043	3.15958	181.031	1.00086
40.80	-1.00086E 00	-1.79217E-02	1.00102	3.15950	181.026	1.00204
40.82	-1.00144E 00	-1.77905E-02	1.00160	3.15936	181.018	1.00320
40.84	-1.00200E 00	-1.76003E-02	1.00216	3.15916	181.006	1.00432
40.86	-1.00254E 00	-1.73531E-02	1.00269	3.15890	180.992	1.00539
40.88	-1.00305E 00	-1.70519E-02	1.00320	3.15859	180.974	1.00641
40.90	-1.00353E 00	-1.66998E-02	1.00367	3.15823	180.953	1.00735
40.92	-1.00397E 00	-1.63005E-02	1.00410	3.15783	180.930	1.00822
40.94	-1.00437E 00	-1.58584E-02	1.00449	3.15738	180.905	1.00900
40.96	-1.00471E 00	-1.53784E-02	1.00483	3.15690	180.877	1.00969
40.98	-1.00501E 00	-1.48655E-02	1.00512	3.15638	180.847	1.01027
41.00	-1.00525E 00	-1.43252E-02	1.00536	3.15584	180.816	1.01074

ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
41.00	-1.00525E 00	-1.43252E-02	1.00536	3.15584	180.816	1.01074
41.02	-1.00544E 00	-1.37635E-02	1.00553	3.15528	180.784	1.01110
41.04	-1.00557E 00	-1.31858E-02	1.00565	3.15470	180.751	1.01134
41.06	-1.00563E 00	-1.25991E-02	1.00571	3.15412	180.718	1.01146
41.08	-1.00564E 00	-1.20092E-02	1.00571	3.15353	180.684	1.01146
41.10	-1.00559E 00	-1.14221E-02	1.00565	3.15295	180.651	1.01134
41.12	-1.00548E 00	-1.08442E-02	1.00553	3.15238	180.618	1.01110
41.14	-1.00530E 00	-1.02817E-02	1.00536	3.15182	180.586	1.01074
41.16	-1.00508E 00	-9.74042E-03	1.00512	3.15128	180.555	1.01027
41.18	-1.00480E 00	-9.22610E-03	1.00484	3.15077	180.526	1.00970
41.20	-1.00446E 00	-8.74435E-03	1.00450	3.15030	180.499	1.00902
41.22	-1.00408E 00	-8.29948E-03	1.00412	3.14986	180.474	1.00826
41.24	-1.00366E 00	-7.89677E-03	1.00369	3.14946	180.451	1.00740
41.26	-1.00320E 00	-7.54031E-03	1.00323	3.14911	180.431	1.00647
41.28	-1.00271E 00	-7.23316E-03	1.00274	3.14881	180.413	1.00548
41.30	-1.00219E 00	-6.97906E-03	1.00221	3.14856	180.399	1.00443
41.32	-1.00165E 00	-6.78022E-03	1.00167	3.14836	180.388	1.00334
41.34	-1.00109E 00	-6.63898E-03	1.00111	3.14822	180.380	1.00222
41.36	-1.00052E 00	-6.55621E-03	1.00054	3.14815	180.375	1.00108
41.38	-9.99941E-01	-6.53283E-03	0.99996	3.14813	180.374	0.99993
41.40	-9.99369E-01	-6.56886E-03	0.99939	3.14817	180.377	0.99878
41.42	-9.98805E-01	-6.66344E-03	0.99883	3.14826	180.382	0.99766
41.44	-9.98255E-01	-6.81588E-03	0.99828	3.14842	180.391	0.99656
41.46	-9.97724E-01	-7.02398E-03	0.99775	3.14863	180.403	0.99550
41.48	-9.97219E-01	-7.28553E-03	0.99725	3.14890	180.419	0.99450
41.50	-9.96745E-01	-7.59755E-03	0.99677	3.14921	180.437	0.99356
41.52	-9.96306E-01	-7.95654E-03	0.99634	3.14958	180.458	0.99269
41.54	-9.95908E-01	-8.35838E-03	0.99594	3.14999	180.481	0.99190
41.56	-9.95555E-01	-8.79830E-03	0.99559	3.15043	180.506	0.99121
41.58	-9.95250E-01	-9.27235E-03	0.99529	3.15091	180.534	0.99061
41.60	-9.94997E-01	-9.77420E-03	0.99504	3.15142	180.563	0.99011
41.62	-9.94797E-01	-1.02995E-02	0.99485	3.15195	180.593	0.98973
41.64	-9.94654E-01	-1.08415E-02	0.99471	3.15249	180.624	0.98945
41.66	-9.94568E-01	-1.13951E-02	0.99463	3.15305	180.656	0.98930
41.68	-9.94541E-01	-1.19535E-02	0.99461	3.15361	180.689	0.98925
41.70	-9.94571E-01	-1.25118E-02	0.99465	3.15417	180.721	0.98933
41.72	-9.94660E-01	-1.30632E-02	0.99475	3.15473	180.752	0.98952
41.74	-9.94806E-01	-1.36016E-02	0.99490	3.15526	180.783	0.98982
41.76	-9.95007E-01	-1.41211E-02	0.99511	3.15578	180.813	0.99024
41.78	-9.95260E-01	-1.46171E-02	0.99537	3.15628	180.841	0.99076
41.80	-9.95564E-01	-1.50833E-02	0.99568	3.15674	180.868	0.99138
41.82	-9.95915E-01	-1.55155E-02	0.99604	3.15717	180.893	0.99209
41.84	-9.96309E-01	-1.59079E-02	0.99644	3.15756	180.915	0.99288
41.86	-9.96741E-01	-1.62579E-02	0.99687	3.15790	180.934	0.99376
41.88	-9.97207E-01	-1.65608E-02	0.99734	3.15820	180.951	0.99470
41.90	-9.97702E-01	-1.68135E-02	0.99784	3.15844	180.965	0.99569
41.92	-9.98221E-01	-1.70136E-02	0.99837	3.15863	180.976	0.99673
41.94	-9.98757E-01	-1.71585E-02	0.99890	3.15877	180.984	0.99781
41.96	-9.99306E-01	-1.72478E-02	0.99945	3.15885	180.989	0.99891
41.98	-9.99860E-01	-1.72795E-02	1.00001	3.15887	180.990	1.00002
42.00	-1.00042E 00	-1.72536E-02	1.00056	3.15884	180.988	1.00113

ka	Re G	Im G	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
42.00	-1.00042E 00	-1.72536E-02	1.00056	3.15884	180.988	1.00113
42.02	-1.00096E 00	-1.71708E-02	1.00111	3.15875	180.983	1.00222
42.04	-1.00150E 00	-1.70313E-02	1.00165	3.15860	180.974	1.00330
42.06	-1.00202E 00	-1.68377E-02	1.00216	3.15839	180.963	1.00433
42.08	-1.00252E 00	-1.65915E-02	1.00266	3.15814	180.948	1.00532
42.10	-1.00299E 00	-1.62956E-02	1.00312	3.15784	180.931	1.00626
42.12	-1.00343E 00	-1.59528E-02	1.00355	3.15749	180.911	1.00712
42.14	-1.00383E 00	-1.55674E-02	1.00395	3.15710	180.888	1.00791
42.16	-1.00418E 00	-1.51426E-02	1.00430	3.15667	180.864	1.00862
42.18	-1.00450E 00	-1.46841E-02	1.00460	3.15621	180.838	1.00923
42.20	-1.00476E 00	-1.41961E-02	1.00486	3.15572	180.809	1.00974
42.22	-1.00497E 00	-1.36847E-02	1.00506	3.15521	180.780	1.01015
42.24	-1.00513E 00	-1.31545E-02	1.00522	3.15468	180.750	1.01046
42.26	-1.00523E 00	-1.26108E-02	1.00531	3.15414	180.719	1.01065
42.28	-1.00528E 00	-1.20601E-02	1.00535	3.15359	180.687	1.01073
42.30	-1.00527E 00	-1.15084E-02	1.00534	3.15304	180.656	1.01070
42.32	-1.00520E 00	-1.09611E-02	1.00526	3.15250	180.625	1.01055
42.34	-1.00508E 00	-1.04240E-02	1.00514	3.15196	180.594	1.01030
42.36	-1.00491E 00	-9.90290E-03	1.00495	3.15145	180.565	1.00993
42.38	-1.00468E 00	-9.40322E-03	1.00472	3.15095	180.536	1.00947
42.40	-1.00440E 00	-8.93045E-03	1.00444	3.15048	180.509	1.00890
42.42	-1.00408E 00	-8.48918E-03	1.00411	3.15005	180.484	1.00824
42.44	-1.00371E 00	-8.08397E-03	1.00374	3.14965	180.461	1.00750
42.46	-1.00331E 00	-7.71936E-03	1.00334	3.14929	180.441	1.00668
42.48	-1.00287E 00	-7.39864E-03	1.00289	3.14897	180.423	1.00579
42.50	-1.00240E 00	-7.12531E-03	1.00242	3.14870	180.407	1.00485
42.52	-1.00190E 00	-6.90247E-03	1.00193	3.14848	180.395	1.00386
42.54	-1.00139E 00	-6.73180E-03	1.00141	3.14832	180.385	1.00282
42.56	-1.00086E 00	-6.61521E-03	1.00088	3.14820	180.379	1.00177
42.58	-1.00033E 00	-6.55377E-03	1.00035	3.14814	180.375	1.00070
42.60	-9.99788E-01	-6.54772E-03	0.99981	3.14814	180.375	0.99962
42.62	-9.99255E-01	-6.59732E-03	0.99928	3.14819	180.378	0.99855
42.64	-9.98729E-01	-6.70202E-03	0.99875	3.14830	180.384	0.99751
42.66	-9.98219E-01	-6.86023E-03	0.99824	3.14847	180.394	0.99649
42.68	-9.97729E-01	-7.06963E-03	0.99775	3.14868	180.406	0.99551
42.70	-9.97264E-01	-7.32783E-03	0.99729	3.14894	180.421	0.99459
42.72	-9.96829E-01	-7.63287E-03	0.99686	3.14925	180.439	0.99373
42.74	-9.96430E-01	-7.98102E-03	0.99646	3.14960	180.459	0.99294
42.76	-9.96069E-01	-8.36730E-03	0.99610	3.14999	180.481	0.99222
42.78	-9.95751E-01	-8.78932E-03	0.99579	3.15042	180.506	0.99160
42.80	-9.95479E-01	-9.24054E-03	0.99552	3.15087	180.532	0.99106
42.82	-9.95257E-01	-9.71784E-03	0.99530	3.15136	180.559	0.99063
42.84	-9.95085E-01	-1.02138E-02	0.99514	3.15186	180.588	0.99030
42.86	-9.94966E-01	-1.07252E-02	0.99502	3.15237	180.618	0.99007
42.88	-9.94901E-01	-1.12453E-02	0.99496	3.15290	180.648	0.98995
42.90	-9.94891E-01	-1.17684E-02	0.99496	3.15342	180.678	0.98995
42.92	-9.94936E-01	-1.22898E-02	0.99501	3.15394	180.708	0.99005
42.94	-9.95034E-01	-1.28028E-02	0.99512	3.15446	180.737	0.99026
42.96	-9.95186E-01	-1.33021E-02	0.99527	3.15496	180.766	0.99057
42.98	-9.95388E-01	-1.37829E-02	0.99548	3.15544	180.793	0.99099
43.00	-9.95640E-01	-1.42397E-02	0.99574	3.15589	180.819	0.99150

ka	Re $\underline{G}$	Im $\underline{G}$	G	Φ_{RAD}	Φ_{DEG}	$\sigma/\pi a^2$
43.00	-9.95640E-01	-1.42397E-02	0.99574	3.15589	180.819	0.99150
43.02	-9.95937E-01	-1.46676E-02	0.99605	3.15632	180.844	0.99211
43.04	-9.96277E-01	-1.50619E-02	0.99639	3.15671	180.866	0.99280
43.06	-9.96657E-01	-1.54183E-02	0.99678	3.15706	180.886	0.99356
43.08	-9.97071E-01	-1.57333E-02	0.99720	3.15737	180.904	0.99440
43.10	-9.97516E-01	-1.60039E-02	0.99764	3.15763	180.919	0.99529
43.12	-9.97986E-01	-1.62266E-02	0.99812	3.15785	180.932	0.99624
43.14	-9.98477E-01	-1.63993E-02	0.99861	3.15802	180.941	0.99723
43.16	-9.98983E-01	-1.65202E-02	0.99912	3.15813	180.947	0.99824
43.18	-9.99499E-01	-1.65881E-02	0.99964	3.15819	180.951	0.99927
43.20	-1.00002E 00	-1.66025E-02	1.00016	3.15819	180.951	1.00031
43.22	-1.00054E 00	-1.65626E-02	1.00067	3.15814	180.948	1.00135
43.24	-1.00105E 00	-1.64699E-02	1.00119	3.15804	180.943	1.00237
43.26	-1.00155E 00	-1.63250E-02	1.00168	3.15789	180.934	1.00337
43.28	-1.00203E 00	-1.61293E-02	1.00216	3.15769	180.922	1.00433
43.30	-1.00249E 00	-1.58848E-02	1.00262	3.15744	180.908	1.00524
43.32	-1.00292E 00	-1.55947E-02	1.00304	3.15714	180.891	1.00610
43.34	-1.00332E 00	-1.52620E-02	1.00344	3.15680	180.871	1.00689
43.36	-1.00368E 00	-1.48900E-02	1.00380	3.15643	180.850	1.00760
43.38	-1.00401E 00	-1.44830E-02	1.00411	3.15602	180.826	1.00824
43.40	-1.00429E 00	-1.40450E-02	1.00439	3.15558	180.801	1.00879
43.42	-1.00452E 00	-1.35814E-02	1.00461	3.15511	180.775	1.00925
43.44	-1.00470E 00	-1.30963E-02	1.00479	3.15463	180.747	1.00960
43.46	-1.00484E 00	-1.25953E-02	1.00492	3.15413	180.718	1.00986
43.48	-1.00492E 00	-1.20841E-02	1.00499	3.15362	180.689	1.01001
43.50	-1.00495E 00	-1.15674E-02	1.00501	3.15310	180.659	1.01005
43.52	-1.00492E 00	-1.10509E-02	1.00498	3.15259	180.630	1.00999
43.54	-1.00485E 00	-1.05404E-02	1.00490	3.15208	180.601	1.00983
43.56	-1.00472E 00	-1.00409E-02	1.00477	3.15159	180.573	1.00956
43.58	-1.00454E 00	-9.55801E-03	1.00459	3.15111	180.545	1.00919
43.60	-1.00431E 00	-9.09654E-03	1.00435	3.15065	180.519	1.00873
43.62	-1.00404E 00	-8.66130E-03	1.00408	3.15022	180.494	1.00817
43.64	-1.00373E 00	-8.25712E-03	1.00376	3.14982	180.471	1.00753
43.66	-1.00337E 00	-7.88805E-03	1.00340	3.14945	180.450	1.00682
43.68	-1.00298E 00	-7.55764E-03	1.00301	3.14913	180.432	1.00603
43.70	-1.00256E 00	-7.26938E-03	1.00259	3.14884	180.415	1.00518
43.72	-1.00212E 00	-7.02661E-03	1.00214	3.14860	180.402	1.00428
43.74	-1.00165E 00	-6.83125E-03	1.00167	3.14841	180.391	1.00334
43.76	-1.00116E 00	-6.68564E-03	1.00118	3.14827	180.383	1.00237
43.78	-1.00066E 00	-6.59103E-03	1.00069	3.14818	180.377	1.00137
43.80	-1.00016E 00	-6.54787E-03	1.00018	3.14814	180.375	1.00037
43.82	-9.99659E-01	-6.55718E-03	0.99968	3.14815	180.376	0.99936
43.84	-9.99160E-01	-6.61832E-03	0.99918	3.14822	180.380	0.99836
43.86	-9.98672E-01	-6.73024E-03	0.99869	3.14833	180.386	0.99739
43.88	-9.98199E-01	-6.89222E-03	0.99822	3.14850	180.396	0.99645
43.90	-9.97746E-01	-7.10153E-03	0.99777	3.14871	180.408	0.99555
43.92	-9.97317E-01	-7.35643E-03	0.99734	3.14897	180.423	0.99470
43.94	-9.96919E-01	-7.65388E-03	0.99695	3.14927	180.440	0.99391
43.96	-9.96554E-01	-7.99057E-03	0.99659	3.14961	180.459	0.99318
43.98	-9.96227E-01	-8.36254E-03	0.99626	3.14999	180.481	0.99254
44.00	-9.95942E-01	-8.76574E-03	0.99598	3.15039	180.504	0.99198

ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
44.00	-9.95942E-01	-8.76574E-03	0.99598	3.15039	180.504	0.99198
44.02	-9.95699E-01	-9.19611E-03	0.99574	3.15083	180.529	0.99150
44.04	-9.95504E-01	-9.64869E-03	0.99555	3.15128	180.555	0.99112
44.06	-9.95357E-01	-1.01182E-02	0.99541	3.15176	180.582	0.99084
44.08	-9.95259E-01	-1.06003E-02	0.99532	3.15224	180.610	0.99065
44.10	-9.95213E-01	-1.10887E-02	0.99527	3.15273	180.638	0.99057
44.12	-9.95218E-01	-1.15793E-02	0.99529	3.15323	180.667	0.99059
44.14	-9.95274E-01	-1.20659E-02	0.99535	3.15372	180.695	0.99072
44.16	-9.95381E-01	-1.25435E-02	0.99546	3.15419	180.722	0.99094
44.18	-9.95536E-01	-1.30074E-02	0.99562	3.15466	180.749	0.99126
44.20	-9.95739E-01	-1.34520E-02	0.99583	3.15510	180.774	0.99168
44.22	-9.95987E-01	-1.38729E-02	0.99608	3.15552	180.798	0.99218
44.24	-9.96278E-01	-1.42653E-02	0.99638	3.15591	180.820	0.99277
44.26	-9.96607E-01	-1.46256E-02	0.99671	3.15627	180.841	0.99344
44.28	-9.96972E-01	-1.49493E-02	0.99708	3.15659	180.859	0.99418
44.30	-9.97369E-01	-1.52334E-02	0.99749	3.15687	180.875	0.99498
44.32	-9.97793E-01	-1.54743E-02	0.99791	3.15710	180.889	0.99583
44.34	-9.98240E-01	-1.56701E-02	0.99836	3.15729	180.899	0.99673
44.36	-9.98704E-01	-1.58185E-02	0.99883	3.15743	180.907	0.99766
44.38	-9.99182E-01	-1.59179E-02	0.99931	3.15752	180.913	0.99862
44.40	-9.99667E-01	-1.59679E-02	0.99979	3.15756	180.915	0.99959
44.42	-1.00015E 00	-1.59670E-02	1.00028	3.15756	180.915	1.00056
44.44	-1.00064E 00	-1.59155E-02	1.00077	3.15750	180.911	1.00153
44.46	-1.00112E 00	-1.58149E-02	1.00124	3.15739	180.905	1.00249
44.48	-1.00158E 00	-1.56654E-02	1.00170	3.15723	180.896	1.00341
44.50	-1.00203E 00	-1.54687E-02	1.00215	3.15703	180.884	1.00430
44.52	-1.00245E 00	-1.52273E-02	1.00257	3.15678	180.870	1.00514
44.54	-1.00285E 00	-1.49439E-02	1.00296	3.15649	180.854	1.00593
44.56	-1.00321E 00	-1.46217E-02	1.00332	3.15617	180.835	1.00665
44.58	-1.00354E 00	-1.42625E-02	1.00365	3.15580	180.814	1.00730
44.60	-1.00384E 00	-1.38727E-02	1.00393	3.15541	180.792	1.00788
44.62	-1.00409E 00	-1.34545E-02	1.00418	3.15499	180.768	1.00837
44.64	-1.00429E 00	-1.30139E-02	1.00438	3.15455	180.742	1.00877
44.66	-1.00445E 00	-1.25545E-02	1.00453	3.15409	180.716	1.00908
44.68	-1.00456E 00	-1.20817E-02	1.00464	3.15362	180.689	1.00929
44.70	-1.00463E 00	-1.16003E-02	1.00469	3.15314	180.662	1.00941
44.72	-1.00464E 00	-1.11149E-02	1.00470	3.15266	180.634	1.00942
44.74	-1.00460E 00	-1.06321E-02	1.00466	3.15218	180.606	1.00934
44.76	-1.00452E 00	-1.01556E-02	1.00457	3.15170	180.579	1.00916
44.78	-1.00438E 00	-9.69068E-03	1.00443	3.15124	180.553	1.00888
44.80	-1.00420E 00	-9.24311E-03	1.00425	3.15080	180.527	1.00851
44.82	-1.00398E 00	-8.81654E-03	1.00402	3.15037	180.503	1.00805
44.84	-1.00371E 00	-8.41663E-03	1.00375	3.14998	180.480	1.00751
44.86	-1.00341E 00	-8.04541E-03	1.00344	3.14961	180.459	1.00689
44.88	-1.00306E 00	-7.70916E-03	1.00309	3.14928	180.440	1.00620
44.90	-1.00269E 00	-7.41002E-03	1.00272	3.14898	180.423	1.00544
44.92	-1.00229E 00	-7.15113E-03	1.00231	3.14873	180.409	1.00463
44.94	-1.00186E 00	-6.93559E-03	1.00189	3.14852	180.397	1.00378
44.96	-1.00142E 00	-6.76481E-03	1.00144	3.14835	180.387	1.00289
44.98	-1.00096E 00	-6.64146E-03	1.00098	3.14823	180.380	1.00197
45.00	-1.00049E 00	-6.56563E-03	1.00051	3.14815	180.376	1.00103

Ka	Re G	Im G	G	Φ RAD	Φ DEG	σ/πa²
45.00	-1.00049E 00	-6.56563E-03	1.00051	3.14815	180.376	1.00103
45.02	-1.00002E 00	-6.53902E-03	1.00004	3.14813	180.375	1.00008
45.04	-9.99550E-01	-6.56099E-03	0.99957	3.14816	180.376	0.99914
45.06	-9.99084E-01	-6.63205E-03	0.99911	3.14823	180.380	0.99821
45.08	-9.98629E-01	-6.74992E-03	0.99865	3.14835	180.387	0.99731
45.10	-9.98190E-01	-6.91424E-03	0.99821	3.14852	180.397	0.99643
45.12	-9.97771E-01	-7.12259E-03	0.99780	3.14873	180.409	0.99560
45.14	-9.97377E-01	-7.37289E-03	0.99740	3.14898	180.424	0.99481
45.16	-9.97011E-01	-7.66232E-03	0.99704	3.14928	180.440	0.99409
45.18	-9.96679E-01	-7.98738E-03	0.99671	3.14961	180.459	0.99343
45.20	-9.96382E-01	-8.34513E-03	0.99642	3.14997	180.480	0.99285
45.22	-9.96125E-01	-8.73095E-03	0.99616	3.15036	180.502	0.99234
45.24	-9.95910E-01	-9.14044E-03	0.99595	3.15077	180.526	0.99192
45.26	-9.95739E-01	-9.56982E-03	0.99578	3.15120	180.551	0.99159
45.28	-9.95613E-01	-1.00140E-02	0.99566	3.15165	180.576	0.99135
45.30	-9.95535E-01	-1.04684E-02	0.99559	3.15211	180.602	0.99120
45.32	-9.95505E-01	-1.09280E-02	0.99556	3.15257	180.629	0.99115
45.34	-9.95523E-01	-1.13875E-02	0.99559	3.15303	180.655	0.99120
45.36	-9.95588E-01	-1.18423E-02	0.99566	3.15349	180.681	0.99134
45.38	-9.95701E-01	-1.22872E-02	0.99578	3.15393	180.707	0.99157
45.40	-9.95859E-01	-1.27181E-02	0.99594	3.15436	180.732	0.99190
45.42	-9.96062E-01	-1.31294E-02	0.99615	3.15477	180.755	0.99231
45.44	-9.96306E-01	-1.35175E-02	0.99640	3.15516	180.777	0.99281
45.46	-9.96589E-01	-1.38779E-02	0.99669	3.15552	180.798	0.99338
45.48	-9.96908E-01	-1.42064E-02	0.99701	3.15584	180.816	0.99403
45.50	-9.97259E-01	-1.45003E-02	0.99736	3.15613	180.833	0.99474
45.52	-9.97639E-01	-1.47562E-02	0.99775	3.15638	180.847	0.99550
45.54	-9.98042E-01	-1.49708E-02	0.99815	3.15659	180.859	0.99631
45.56	-9.98466E-01	-1.51424E-02	0.99858	3.15676	180.869	0.99716
45.58	-9.98906E-01	-1.52691E-02	0.99902	3.15688	180.876	0.99805
45.60	-9.99357E-01	-1.53501E-02	0.99947	3.15695	180.880	0.99895
45.62	-9.99814E-01	-1.53836E-02	0.99993	3.15698	180.882	0.99986
45.64	-1.00027E 00	-1.53696E-02	1.00039	3.15696	180.880	1.00078
45.66	-1.00073E 00	-1.53090E-02	1.00084	3.15689	180.876	1.00168
45.68	-1.00117E 00	-1.52012E-02	1.00128	3.15677	180.870	1.00257
45.70	-1.00160E 00	-1.50488E-02	1.00171	3.15662	180.861	1.00343
45.72	-1.00202E 00	-1.48528E-02	1.00213	3.15641	180.849	1.00426
45.74	-1.00241E 00	-1.46151E-02	1.00251	3.15617	180.835	1.00503
45.76	-1.00277E 00	-1.43386E-02	1.00287	3.15589	180.819	1.00576
45.78	-1.00311E 00	-1.40260E-02	1.00320	3.15557	180.801	1.00642
45.80	-1.00341E 00	-1.36812E-02	1.00350	3.15523	180.781	1.00701
45.82	-1.00367E 00	-1.33074E-02	1.00376	3.15485	180.760	1.00753
45.84	-1.00389E 00	-1.29090E-02	1.00398	3.15445	180.737	1.00797
45.86	-1.00407E 00	-1.24897E-02	1.00415	3.15403	180.713	1.00832
45.88	-1.00421E 00	-1.20545E-02	1.00428	3.15360	180.688	1.00859
45.90	-1.00431E 00	-1.16077E-02	1.00437	3.15315	180.662	1.00876
45.92	-1.00435E 00	-1.11544E-02	1.00441	3.15270	180.636	1.00885
45.94	-1.00435E 00	-1.06988E-02	1.00441	3.15224	180.610	1.00884
45.96	-1.00430E 00	-1.02464E-02	1.00436	3.15179	180.585	1.00873
45.98	-1.00421E 00	-9.80196E-03	1.00426	3.15135	180.559	1.00854
46.00	-1.00407E 00	-9.36934E-03	1.00412	3.15092	180.535	1.00825

Ka	Re G	Im G	G	Φ RAD	Φ DEG	σ/πa²
46.00	-1.00407E 00	-9.36934E-03	1.00412	3.15092	180.535	1.00825
46.02	-1.00389E 00	-8.95388E-03	1.00393	3.15051	180.511	1.00788
46.04	-1.00367E 00	-8.55967E-03	1.00371	3.15012	180.489	1.00743
46.06	-1.00341E 00	-8.19092E-03	1.00344	3.14976	180.468	1.00690
46.08	-1.00311E 00	-7.85126E-03	1.00314	3.14942	180.448	1.00630
46.10	-1.00278E 00	-7.54431E-03	1.00281	3.14912	180.431	1.00563
46.12	-1.00243E 00	-7.27335E-03	1.00245	3.14885	180.416	1.00491
46.14	-1.00204E 00	-7.04091E-03	1.00207	3.14862	180.403	1.00414
46.16	-1.00164E 00	-6.84985E-03	1.00166	3.14843	180.392	1.00333
46.18	-1.00122E 00	-6.70141E-03	1.00124	3.14829	180.383	1.00248
46.20	-1.00078E 00	-6.59739E-03	1.00081	3.14818	180.378	1.00161
46.22	-1.00034E 00	-6.53892E-03	1.00036	3.14813	180.375	1.00073
46.24	-9.99899E-01	-6.52597E-03	0.99992	3.14812	180.374	0.99984
46.26	-9.99458E-01	-6.55904E-03	0.99948	3.14816	180.376	0.99896
46.28	-9.99022E-01	-6.63744E-03	0.99904	3.14824	180.381	0.99809
46.30	-9.98599E-01	-6.76005E-03	0.99862	3.14836	180.388	0.99725
46.32	-9.98191E-01	-6.92579E-03	0.99822	3.14853	180.398	0.99643
46.34	-9.97804E-01	-7.13225E-03	0.99783	3.14874	180.410	0.99566
46.36	-9.97440E-01	-7.37770E-03	0.99747	3.14899	180.424	0.99494
46.38	-9.97105E-01	-7.65870E-03	0.99713	3.14927	180.440	0.99428
46.40	-9.96801E-01	-7.97270E-03	0.99683	3.14959	180.458	0.99368
46.42	-9.96532E-01	-8.31571E-03	0.99657	3.14994	180.478	0.99315
46.44	-9.96301E-01	-8.68460E-03	0.99634	3.15031	180.499	0.99269
46.46	-9.96110E-01	-9.07480E-03	0.99615	3.15070	180.522	0.99232
46.48	-9.95961E-01	-9.48210E-03	0.99601	3.15111	180.545	0.99203
46.50	-9.95855E-01	-9.90216E-03	0.99590	3.15154	180.570	0.99183
46.52	-9.95793E-01	-1.03307E-02	0.99585	3.15197	180.594	0.99171
46.54	-9.95777E-01	-1.07627E-02	0.99584	3.15240	180.619	0.99169
46.56	-9.95806E-01	-1.11937E-02	0.99587	3.15283	180.644	0.99175
46.58	-9.95880E-01	-1.16188E-02	0.99595	3.15326	180.668	0.99191
46.60	-9.95997E-01	-1.20336E-02	0.99607	3.15367	180.692	0.99215
46.62	-9.96157E-01	-1.24337E-02	0.99623	3.15407	180.715	0.99248
46.64	-9.96358E-01	-1.28147E-02	0.99644	3.15445	180.737	0.99289
46.66	-9.96597E-01	-1.31726E-02	0.99668	3.15481	180.757	0.99338
46.68	-9.96872E-01	-1.35034E-02	0.99696	3.15514	180.776	0.99394
46.70	-9.97180E-01	-1.38037E-02	0.99728	3.15543	180.793	0.99456
46.72	-9.97517E-01	-1.40705E-02	0.99762	3.15570	180.808	0.99524
46.74	-9.97881E-01	-1.43004E-02	0.99798	3.15592	180.821	0.99597
46.76	-9.98266E-01	-1.44918E-02	0.99837	3.15611	180.832	0.99675
46.78	-9.98669E-01	-1.46417E-02	0.99878	3.15625	180.840	0.99755
46.80	-9.99085E-01	-1.47495E-02	0.99919	3.15635	180.846	0.99839
46.82	-9.99510E-01	-1.48135E-02	0.99962	3.15641	180.849	0.99924
46.84	-9.99940E-01	-1.48330E-02	1.00005	3.15643	180.850	1.00010
46.86	-1.00037E 00	-1.48083E-02	1.00048	3.15639	180.848	1.00096
46.88	-1.00079E 00	-1.47394E-02	1.00090	3.15632	180.844	1.00181
46.90	-1.00121E 00	-1.46269E-02	1.00132	3.15620	180.837	1.00263
46.92	-1.00161E 00	-1.44727E-02	1.00172	3.15604	180.828	1.00343
46.94	-1.00199E 00	-1.42774E-02	1.00210	3.15584	180.816	1.00420
46.96	-1.00236E 00	-1.40443E-02	1.00245	3.15560	180.803	1.00491
46.98	-1.00269E 00	-1.37750E-02	1.00279	3.15533	180.787	1.00558
47.00	-1.00300E 00	-1.34732E-02	1.00309	3.15502	180.770	1.00618

ka	Re G	Im G	G	Φ RAD	Φ DEG	σ/πa²
47.00	-1.00300E 00	-1.34732E-02	1.00309	3.15502	180.770	1.00618
47.02	-1.00327E 00	-1.31411E-02	1.00336	3.15469	180.750	1.00672
47.04	-1.00351E 00	-1.27832E-02	1.00359	3.15433	180.730	1.00719
47.06	-1.00371E 00	-1.24029E-02	1.00379	3.15395	180.708	1.00758
47.08	-1.00387E 00	-1.20046E-02	1.00394	3.15355	180.685	1.00790
47.10	-1.00399E 00	-1.15922E-02	1.00405	3.15314	180.662	1.00812
47.12	-1.00406E 00	-1.11704E-02	1.00412	3.15272	180.637	1.00827
47.14	-1.00409E 00	-1.07436E-02	1.00415	3.15229	180.613	1.00832
47.16	-1.00408E 00	-1.03158E-02	1.00414	3.15187	180.589	1.00829
47.18	-1.00403E 00	-9.89157E-03	1.00408	3.15144	180.564	1.00817
47.20	-1.00393E 00	-9.47624E-03	1.00397	3.15103	180.541	1.00796
47.22	-1.00379E 00	-9.07384E-03	1.00383	3.15063	180.518	1.00767
47.24	-1.00361E 00	-8.68849E-03	1.00365	3.15025	180.496	1.00730
47.26	-1.00339E 00	-8.32340E-03	1.00342	3.14989	180.475	1.00686
47.28	-1.00313E 00	-7.98378E-03	1.00317	3.14955	180.456	1.00634
47.30	-1.00285E 00	-7.67259E-03	1.00288	3.14924	180.438	1.00576
47.32	-1.00253E 00	-7.39270E-03	1.00256	3.14897	180.422	1.00512
47.34	-1.00219E 00	-7.14742E-03	1.00221	3.14872	180.409	1.00443
47.36	-1.00182E 00	-6.93885E-03	1.00184	3.14852	180.397	1.00369
47.38	-1.00144E 00	-6.76979E-03	1.00146	3.14835	180.387	1.00292
47.40	-1.00104E 00	-6.64098E-03	1.00106	3.14823	180.380	1.00212
47.42	-1.00063E 00	-6.55419E-03	1.00065	3.14814	180.375	1.00130
47.44	-1.00021E 00	-6.51039E-03	1.00023	3.14810	180.373	1.00047
47.46	-9.99795E-01	-6.51003E-03	0.99982	3.14810	180.373	0.99963
47.48	-9.99381E-01	-6.55243E-03	0.99940	3.14815	180.376	0.99880
47.50	-9.98974E-01	-6.63703E-03	0.99900	3.14824	180.381	0.99799
47.52	-9.98579E-01	-6.76339E-03	0.99860	3.14837	180.388	0.99721
47.54	-9.98201E-01	-6.92922E-03	0.99822	3.14853	180.398	0.99645
47.56	-9.97842E-01	-7.13341E-03	0.99787	3.14874	180.410	0.99574
47.58	-9.97507E-01	-7.37284E-03	0.99753	3.14898	180.423	0.99507
47.60	-9.97199E-01	-7.64536E-03	0.99723	3.14926	180.439	0.99446
47.62	-9.96922E-01	-7.94794E-03	0.99695	3.14956	180.457	0.99392
47.64	-9.96678E-01	-8.27703E-03	0.99671	3.14990	180.476	0.99344
47.66	-9.96471E-01	-8.62986E-03	0.99651	3.15025	180.496	0.99303
47.68	-9.96301E-01	-9.00102E-03	0.99634	3.15063	180.518	0.99270
47.70	-9.96172E-01	-9.38818E-03	0.99622	3.15102	180.540	0.99245
47.72	-9.96083E-01	-9.78546E-03	0.99613	3.15142	180.563	0.99228
47.74	-9.96036E-01	-1.01895E-02	0.99609	3.15182	180.586	0.99219
47.76	-9.96032E-01	-1.05955E-02	0.99609	3.15223	180.609	0.99219
47.78	-9.96070E-01	-1.09996E-02	0.99613	3.15264	180.633	0.99228
47.80	-9.96150E-01	-1.13970E-02	0.99622	3.15303	180.655	0.99245
47.82	-9.96272E-01	-1.17842E-02	0.99634	3.15342	180.678	0.99270
47.84	-9.96432E-01	-1.21554E-02	0.99651	3.15379	180.699	0.99302
47.86	-9.96631E-01	-1.25090E-02	0.99671	3.15414	180.719	0.99343
47.88	-9.96865E-01	-1.28391E-02	0.99695	3.15447	180.738	0.99390
47.90	-9.97132E-01	-1.31430E-02	0.99722	3.15477	180.755	0.99444
47.92	-9.97429E-01	-1.34175E-02	0.99752	3.15504	180.771	0.99504
47.94	-9.97753E-01	-1.36592E-02	0.99785	3.15528	180.784	0.99570
47.96	-9.98101E-01	-1.38661E-02	0.99820	3.15548	180.796	0.99640
47.98	-9.98467E-01	-1.40356E-02	0.99857	3.15565	180.805	0.99713
48.00	-9.98850E-01	-1.41667E-02	0.99895	3.15577	180.813	0.99790

Ka	Re $\underline{G}$	Im $\underline{G}$	G	Φ RAD	Φ DEG	$\sigma/\pi a^2$
48.00	-9.98850E-01	-1.41667E-02	0.99895	3.15577	180.813	0.99790
48.02	-9.99244E-01	-1.42571E-02	0.99935	3.15586	180.817	0.99869
48.04	-9.99646E-01	-1.43065E-02	0.99975	3.15590	180.820	0.99950
48.06	-1.00005E 00	-1.43138E-02	1.00015	3.15590	180.820	1.00030
48.08	-1.00045E 00	-1.42796E-02	1.00055	3.15586	180.818	1.00111
48.10	-1.00085E 00	-1.42040E-02	1.00095	3.15578	180.813	1.00190
48.12	-1.00124E 00	-1.40880E-02	1.00134	3.15566	180.806	1.00268
48.14	-1.00161E 00	-1.39322E-02	1.00171	3.15550	180.797	1.00342
48.16	-1.00197E 00	-1.37396E-02	1.00206	3.15530	180.786	1.00413
48.18	-1.00230E 00	-1.35106E-02	1.00239	3.15507	180.772	1.00479
48.20	-1.00261E 00	-1.32492E-02	1.00270	3.15481	180.757	1.00540
48.22	-1.00289E 00	-1.29574E-02	1.00297	3.15451	180.740	1.00596
48.24	-1.00314E 00	-1.26387E-02	1.00322	3.15419	180.722	1.00645
48.26	-1.00335E 00	-1.22962E-02	1.00343	3.15385	180.702	1.00687
48.28	-1.00353E 00	-1.19338E-02	1.00360	3.15348	180.681	1.00722
48.30	-1.00367E 00	-1.15551E-02	1.00374	3.15310	180.660	1.00749
48.32	-1.00377E 00	-1.11646E-02	1.00384	3.15271	180.637	1.00769
48.34	-1.00383E 00	-1.07661E-02	1.00389	3.15232	180.614	1.00780
48.36	-1.00385E 00	-1.03633E-02	1.00391	3.15192	180.591	1.00783
48.38	-1.00383E 00	-9.96166E-03	1.00388	3.15152	180.569	1.00778
48.40	-1.00377E 00	-9.56468E-03	1.00381	3.15112	180.546	1.00764
48.42	-1.00367E 00	-9.17668E-03	1.00371	3.15074	180.524	1.00743
48.44	-1.00352E 00	-8.80130E-03	1.00356	3.15036	180.502	1.00714
48.46	-1.00334E 00	-8.44354E-03	1.00338	3.15001	180.482	1.00677
48.48	-1.00313E 00	-8.10598E-03	1.00316	3.14967	180.463	1.00633
48.50	-1.00288E 00	-7.79313E-03	1.00291	3.14936	180.445	1.00583
48.52	-1.00260E 00	-7.50730E-03	1.00263	3.14908	180.429	1.00527
48.54	-1.00230E 00	-7.25218E-03	1.00233	3.14883	180.415	1.00466
48.56	-1.00197E 00	-7.03010E-03	1.00199	3.14861	180.402	1.00399
48.58	-1.00162E 00	-6.84346E-03	1.00164	3.14842	180.391	1.00329
48.60	-1.00125E 00	-6.69378E-03	1.00128	3.14828	180.383	1.00256
48.62	-1.00088E 00	-6.58282E-03	1.00090	3.14817	180.377	1.00180
48.64	-1.00049E 00	-6.51154E-03	1.00051	3.14810	180.373	1.00102
48.66	-1.00010E 00	-6.48091E-03	1.00012	3.14807	180.371	1.00024
48.68	-9.99705E-01	-6.49077E-03	0.99973	3.14809	180.372	0.99945
48.70	-9.99317E-01	-6.54087E-03	0.99934	3.14814	180.375	0.99868
48.72	-9.98937E-01	-6.63065E-03	0.99896	3.14823	180.380	0.99792
48.74	-9.98569E-01	-6.75916E-03	0.99859	3.14836	180.388	0.99719
48.76	-9.98217E-01	-6.92481E-03	0.99824	3.14853	180.397	0.99648
48.78	-9.97885E-01	-7.12551E-03	0.99791	3.14873	180.409	0.99583
48.80	-9.97576E-01	-7.35923E-03	0.99760	3.14897	180.423	0.99521
48.82	-9.97293E-01	-7.62340E-03	0.99732	3.14924	180.438	0.99465
48.84	-9.97040E-01	-7.91492E-03	0.99707	3.14953	180.455	0.99415
48.86	-9.96820E-01	-8.23088E-03	0.99685	3.14985	180.473	0.99372
48.88	-9.96633E-01	-8.56725E-03	0.99667	3.15019	180.493	0.99335
48.90	-9.96483E-01	-8.92084E-03	0.99652	3.15054	180.513	0.99306
48.92	-9.96371E-01	-9.28775E-03	0.99641	3.15091	180.534	0.99284
48.94	-9.96298E-01	-9.66368E-03	0.99634	3.15129	180.556	0.99270
48.96	-9.96263E-01	-1.00451E-02	0.99631	3.15168	180.578	0.99264
48.98	-9.96271E-01	-1.04273E-02	0.99633	3.15206	180.600	0.99266
49.00	-9.96317E-01	-1.08064E-02	0.99638	3.15244	180.621	0.99276

Ka	Re $\underline{G}$	Im $\underline{G}$	G	ϕ_{RAD}	ϕ_{DEG}	$\sigma/\pi a^2$
49.00	-9.96317E-01	-1.08064E-02	0.99638	3.15244	180.621	0.99276
49.02	-9.96402E-01	-1.11785E-02	0.99647	3.15281	180.643	0.99294
49.04	-9.96525E-01	-1.15393E-02	0.99659	3.15317	180.663	0.99320
49.06	-9.96686E-01	-1.18851E-02	0.99676	3.15352	180.683	0.99352
49.08	-9.96882E-01	-1.22118E-02	0.99696	3.15384	180.702	0.99392
49.10	-9.97111E-01	-1.25164E-02	0.99719	3.15414	180.719	0.99439
49.12	-9.97370E-01	-1.27957E-02	0.99745	3.15442	180.735	0.99491
49.14	-9.97656E-01	-1.30464E-02	0.99774	3.15467	180.749	0.99549
49.16	-9.97967E-01	-1.32660E-02	0.99805	3.15488	180.762	0.99611
49.18	-9.98299E-01	-1.34520E-02	0.99839	3.15507	180.772	0.99678
49.20	-9.98649E-01	-1.36023E-02	0.99874	3.15521	180.780	0.99748
49.22	-9.99012E-01	-1.37160E-02	0.99911	3.15532	180.787	0.99821
49.24	-9.99385E-01	-1.37911E-02	0.99948	3.15539	180.791	0.99896
49.26	-9.99764E-01	-1.38276E-02	0.99986	3.15542	180.792	0.99972
49.28	-1.00014E 00	-1.38247E-02	1.00024	3.15541	180.792	1.00048
49.30	-1.00052E 00	-1.37824E-02	1.00062	3.15537	180.789	1.00124
49.32	-1.00090E 00	-1.37012E-02	1.00099	3.15528	180.784	1.00198
49.34	-1.00126E 00	-1.35820E-02	1.00135	3.15516	180.777	1.00270
49.36	-1.00161E 00	-1.34262E-02	1.00170	3.15500	180.768	1.00339
49.38	-1.00194E 00	-1.32358E-02	1.00202	3.15480	180.757	1.00405
49.40	-1.00224E 00	-1.30125E-02	1.00233	3.15458	180.744	1.00466
49.42	-1.00253E 00	-1.27589E-02	1.00261	3.15432	180.729	1.00522
49.44	-1.00278E 00	-1.24771E-02	1.00286	3.15403	180.713	1.00573
49.46	-1.00301E 00	-1.21708E-02	1.00308	3.15373	180.695	1.00618
49.48	-1.00320E 00	-1.18434E-02	1.00327	3.15340	180.676	1.00656
49.50	-1.00336E 00	-1.14980E-02	1.00343	3.15305	180.657	1.00687
49.52	-1.00349E 00	-1.11380E-02	1.00355	3.15269	180.636	1.00711
49.54	-1.00357E 00	-1.07680E-02	1.00363	3.15232	180.615	1.00727
49.56	-1.00362E 00	-1.03910E-02	1.00367	3.15195	180.593	1.00736
49.58	-1.00363E 00	-1.00122E-02	1.00368	3.15157	180.572	1.00737
49.60	-1.00360E 00	-9.63442E-03	1.00364	3.15119	180.550	1.00730
49.62	-1.00353E 00	-9.26252E-03	1.00357	3.15082	180.529	1.00715
49.64	-1.00342E 00	-8.89946E-03	1.00346	3.15046	180.508	1.00693
49.66	-1.00328E 00	-8.54974E-03	1.00331	3.15011	180.488	1.00664
49.68	-1.00310E 00	-8.21727E-03	1.00313	3.14978	180.469	1.00628
49.70	-1.00289E 00	-7.90520E-03	1.00292	3.14947	180.452	1.00585
49.72	-1.00265E 00	-7.61630E-03	1.00268	3.14919	180.435	1.00537
49.74	-1.00238E 00	-7.35426E-03	1.00241	3.14893	180.420	1.00482
49.76	-1.00209E 00	-7.12143E-03	1.00211	3.14870	180.407	1.00423
49.78	-1.00177E 00	-6.92058E-03	1.00180	3.14850	180.396	1.00360
49.80	-1.00144E 00	-6.75349E-03	1.00146	3.14834	180.386	1.00293
49.82	-1.00109E 00	-6.62177E-03	1.00111	3.14821	180.379	1.00223
49.84	-1.00073E 00	-6.52628E-03	1.00075	3.14811	180.374	1.00151
49.86	-1.00037E 00	-6.46889E-03	1.00039	3.14806	180.370	1.00078
49.88	-9.99998E-01	-6.44930E-03	1.00002	3.14804	180.370	1.00004
49.90	-9.99629E-01	-6.46838E-03	0.99965	3.14806	180.371	0.99930
49.92	-9.99265E-01	-6.52496E-03	0.99929	3.14812	180.374	0.99857
49.94	-9.98909E-01	-6.61901E-03	0.99893	3.14822	180.380	0.99786
49.96	-9.98566E-01	-6.74961E-03	0.99859	3.14835	180.387	0.99718
49.98	-9.98239E-01	-6.91351E-03	0.99826	3.14852	180.397	0.99653
50.00	-9.97931E-01	-7.11053E-03	0.99796	3.14872	180.408	0.99592

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